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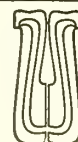
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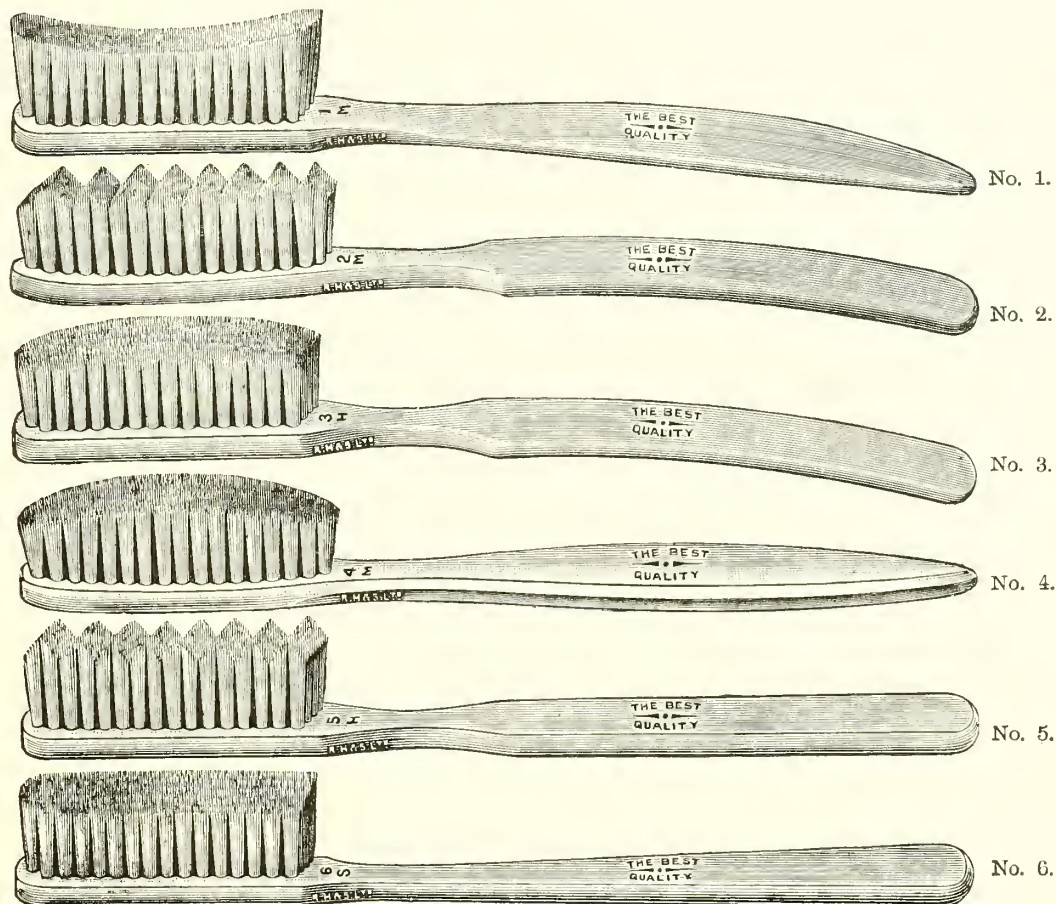
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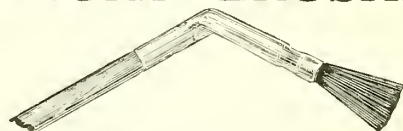


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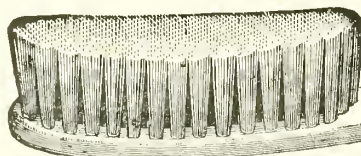
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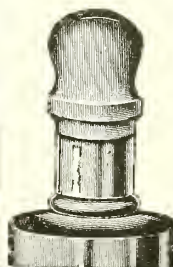
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ESSENCES, OLIVE OIL, PEPPERMINT OIL, QUININE, QUICK-
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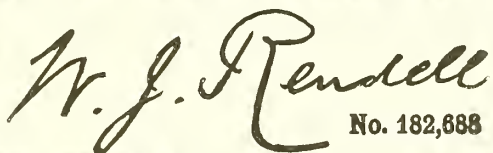
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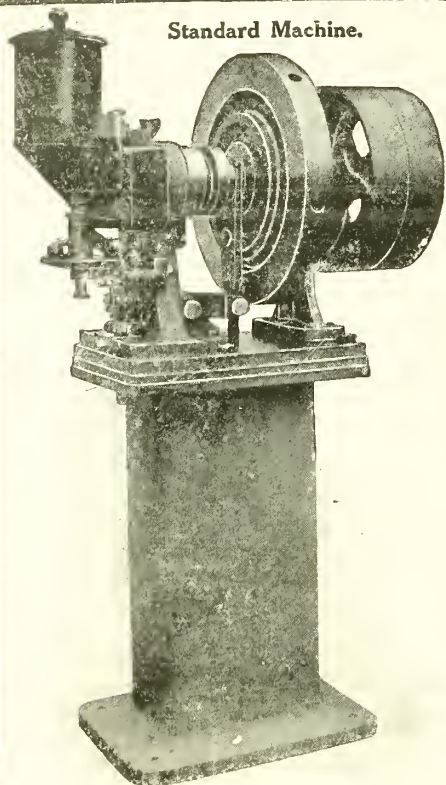
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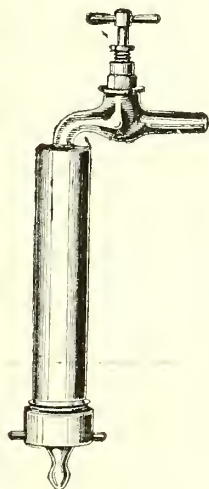
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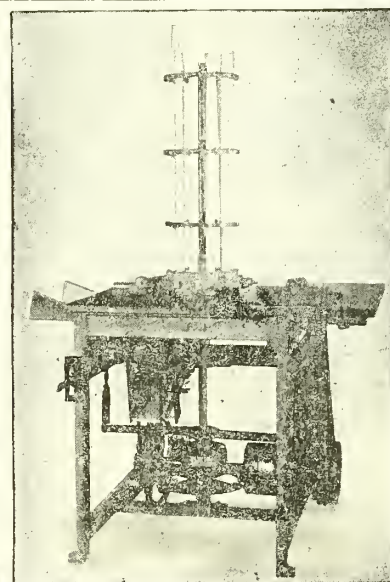
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Complete Plant for Making Bandages.

CLOTH ROLLING & MEASURING MACHINE
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MACHINE



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BANDAGES
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Expert Workmanship.
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A Weekly Journal of Pharmacy and of the Chemical and Drug Trades.
ESTABLISHED 1859.

The CHEMIST AND DRUGGIST is the leading journal addressing the Chemical, Drug and allied trades in the British Empire and other countries in the Old and New Worlds. It has a larger paid subscription circulation than any other Drug Trade Journal, and is the official organ of nineteen Chemists' Societies in Australia, Ireland, New Zealand, South Africa, and the West Indies.

Subscription 10s. a year in advance. Postal orders and cheques to be crossed "Martin's Bank (Limited)." Terms for advertising can be obtained on application to the Publisher at the

Head Office: 42 CANNON STREET, LONDON, E.C.

Telegrams: "Chemicus, Cannon, London." Telephone 3617 Central (three lines).

Branches: ADELAIDE, MELBOURNE, AND SYDNEY, AUST.

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Summary.

The Report of the Departmental Committee appointed to consider the Insurance Act Drug Tariff was presented to the House of Commons on Wednesday evening and published on Thursday. It is fully dealt with in a section of this issue beginning on p. 41. The Committee recommends that the present Tariff be replaced as from December 31, 1915, by a National Tariff for Great Britain, the prices being those of an approved wholesale list, plus an establishment allowance of 0.8d. on each prescription, and a dispensing-fee for everything dispensed except appliances. Chemists' accounts to be the first charge on the Medical Benefit Fund (thus abolishing the discounting clause) and paid promptly, and chemists to be relieved of pricing prescriptions. The pharmacists on the Committee do not agree with the basis of the establishment allowance, and Dr. J. F. Tocher disagrees with other data (or their interpretation) upon which new principles are founded (p. 46).

We deal with the matter on p. 55, and here suggest that the Bloomsbury and Glasgow Checking Bureaus should prepare a comparison of the prices of this month's prescriptions on the present basis and the proposed one, reporting the result as soon as possible.

Although these matters occupy many pages in this issue, it will be found that there is much else in it of interest to readers abroad, as well as those at home, who have little direct concern in Insurance dispensing. Most of these matters are mentioned in contents above, but we may mention specially the article on trade with Russia (p. 67), editorials on the linseed-oil market (p. 57), and the speculations in regard to new taxes (p. 54), as well as the exceptionally full market report and stimulating correspondence pages.

European War.

A Year Ago To-day.

(War News in "C. & D." September 19, 1914.)

Prohibition of the exportation of medicines began to embarrass wholesale and exporting houses, and a deputation of representatives of the wholesale drug-trade, deputed by the Chemical Section of the London Chamber of Commerce, interviewed Sir Robert Morant and Mr. John Anderson, with favourable results. Particulars were published of the scheme for providing gratuitous medical aid for sailors' and soldiers' dependants out of the Prince of Wales's National Relief Fund. The first instalment of our Pharmaceutical Roll of Honour, extending to four columns, was published. Our special war articles included one on the manufacture of photographic developing agents, the manufacture of absolute alcohol in this country, an explanation of the law as to trading with the enemy, and the chemical famine in the United States consequent on the war. The first hearing for the suspension of enemy patents was on the application of Mr. H. S. Wellcome in respect to the salvarsan patents. It was fully reported, and other applications for the suspension of other patents and trade-marks were also given, along with the conditions that applicants for suspension have to fulfil.

Pharmaceutical Roll of Honour.

Non sibi sed patrie.—CICERO.

FIFTY-SECOND LIST.

HALLIDAY, JACK, R.A.M.C. (assistant to J. Savage & Co., Ltd., 254 Manchester Road, Bradford).

HANSON, Corporal FERGUS, Headquarters Staff, 9th Division (assistant to J. Savage & Co., Ltd., 254 Manchester Road, Bradford).

PAPULO, Private THOMAS (formerly with Mr. Brindle, chemist and druggist, Morrison Street, Edinburgh), 2/5th Royal Scots.

POLIANSKY, Private MAURICE (formerly with Mr. George Cowie, chemist and druggist, Dublin Street, Edinburgh), 9th Royal Scots (Highlanders).

SUTCLIFFE, CLARENCE, R.A.M.C. (assistant to J. Savage & Co., Ltd., 254 Manchester Road, Bradford).

What are Enemy Companies?

A Proclamation was published in "The London Gazette" on September 14, giving an answer to this question. It says:

"Whereas doubts have arisen as respects the position under the Proclamations for the time being in force relating to trading with the enemy of incorporated companies or bodies of persons, which, though not incorporated in any enemy country or in territory in hostile occupation, carry on business in any such country or territory, and whereas it is expedient that the position of those companies or bodies for the purposes of those Proclamations should be defined," it is declared that "For the purposes of the Proclamations for the time being in force relating to trading with the enemy, the expression 'enemy'... is hereby declared to include, and to have included, any incorporated company or body of persons (wherever incorporated) carrying on business in an enemy country, or in any territory for the time being in hostile occupation."

Exportation Notices.

GERMANY.—By an Imperial decree of August 4 the exportation of all kinds of thermometers is prohibited. We reported on June 19, p. 34, additions to the list of medicines which may not be exported. By decree dated September 1 a new list of articles replaces these, and the articles are grouped as follows:

1. All substances, compounds, and preparations which can be used for preventing, diagnosing, and treating diseases, pain, and bodily abnormalities of any kind of men and animals.

2. Wadding, gauze, and all sorts of surgical-dressing materials.

3. Surgical and other medical instruments and apparatus used for preventing, diagnosing, and treating diseases of men or animals used in hospitals for sick nursing and in laboratories, as well as parts, and semi-manufactured products of the same nature.

4. Chemical and bacteriological instruments, also parts, and semi-manufactured products of the same nature.

5. Material for the cultivation of bacteria, such as agar-agar, litmus, etc.

6. Serums and vaccines.

7. Animals for physiological experiments.

The exportation of all these is prohibited.

English and Welsh News.

Subscribers are invited to send to the Editor newspapers containing matters of trade interest. The items should be indicated.

The British Association

The eighty-fifth annual meeting was concluded at Manchester last week. Sir Arthur Evans, LL.D., F.R.S., etc., was appointed President in succession to Prof. Arthur Schuster. He is a son of the late Sir John Evans, K.C.B., F.R.S., who was President of the Society of Chemical Industry in 1892-93, and, like his father, is an archaeologist. He was Keeper of the Ashmolean Museum from 1884 to 1908, and is Extraordinary Professor of Prehistoric Archaeology at Oxford University. He has travelled much in connection with archaeological research, and had the distinction of being imprisoned in 1882 by the Austrian Government on a charge of complicity in the Crivoscian insurrection in Southern Dalmatia. Next year's meeting of the Association is to be held in Newcastle-on-Tyne, and an invitation to meet in Bournemouth in 1917 was accepted.

Contracts for Drugs, etc.

Subjoined are particulars of contracts for drugs and allied products which have been notified during the week:

Bath Guardians.—Corbyn, Stacey & Co., Ltd., drugs; Linay & Co., Terrace Walk, Bath, surgical instruments, etc.; Mr. A. W. Griffin, 4 Saville Row, Bath, chemist for urgency orders for six months.

Bradford Guardians have accepted McDougall's tender for disinfectants at 1s. 9d. per gal.

Eton Guardians.—Griffith & Walden, chemists and druggists, drugs, etc.

Sittingbourne Urban Council, on September 8, received a letter from Mr. J. E. French, chemist and druggist, offering to continue his contract for disinfectants for another six months at his present margin of profit, charging only such advances as the wholesale houses imposed upon him. The Council decided to invite fresh tenders.

Fatal Accident.

At the works of May & Baker, Ltd., chemical-manufacturers, Garden Wharf, Church Street, Battersea, on Saturday morning, September 11, while Mr. Harry Garnham, senior foreman, Mr. Edward Geoffrey Burt, engineer, and Mr. Albert George Frowde, chemical labourer, were engaged in the drying-room inspecting a centrifugal desiccator, a portion of the rapidly-circulating drum suddenly flew out with a loud report, striking Mr. Garnham, who was killed instantly. The remaining part fell on Mr. Burt and Mr. Frowde, crushing them seriously. They were removed to the Battersea General Hospital, where both died the same day. Another occupant of the room, named Horsham, escaped with a severe shaking. Considerable alarm among the workpeople was caused until it became known that the accident was local, and that there was no likelihood of danger to others. An inquest was held by Mr. S. Ingleby Oddie on September 13, and is here concisely reported:

It was stated at the inquiry that Mr. Garnham was sixty-three years of age, Mr. Burt thirty-seven, and Mr. Frowde fifty-one. Mr. Charles May appeared for the firm, and Mr. Beverley, H.M. Inspector of Factories, represented the Home Office. The Coroner in opening the proceedings, said the case was a very serious one, resulting in three deaths. The firm, it appeared, had recently purchased through Mr. Garnham a second-hand centrifugal machine with a revolving metal top, which circulated horizontally, and was surrounded by a basket perforated all round, and outside that was a casing. The machine was on a horizontal circular table, which revolved at a very high speed, and was used for drying citric acid and other chemicals. Before it was used in the works he understood the machine had been overhauled and adjusted. Henry F. Horsham, labourer, employed by the company, said on Saturday morning he was engaged in emptying a reservoir in the next room to where the accident happened. The centrifugal machine had been charged once, when it was apparently running properly, there being no unusual noise or vibration. It was re-charged with 80 lb. of citric acid, when he believed the machine was started by Mr. Burt, and that Mr. Garnham and Mr. Frowde were watching it when the explosion took place. William Spicer, engineer, Fairfield Road, Wandsworth, said Mr. Garnham

was a friend of his, and asked him to purchase a centrifugal machine. One was advertised for sale in a daily paper and in a machinery trade paper by Mr. C. F. Davis, a dealer. It was in the possession of Mr. Devinge, Bangor Road, Kew Bridge, and in June, at Mr. Garnham's request, he went and examined it, eventually purchasing it for 45l., as it appeared to be in good working order. A new machine would have cost from 80l. to 90l. He did not ask how old the machine was, as Mr. Devinge only had it for sale. It was purchased by Messrs. May & Baker on his recommendation, and he received a commission. He carried out certain alterations and improvements, putting in new bearings and making adjustments where necessary. It was sent home to Battersea for the last time on September 7, and on Friday evening, September 10, Mr. Garnham rang him up on the telephone to tell him that the machine was working well. Witness added that owing to the war it was difficult to get new centrifugal machines, as they were of foreign make, though he was unable to say whether they were made in Germany or not. Other evidence was given to the effect that Messrs. May & Baker gave Spicer *carte blanche* in buying a machine, there being no question of expense. Dr. Kempster said Garnham was killed instantly, and Dr. Todd, of the Battersea General Hospital, said that Burt died from a fractured skull and laceration of the brain, and Frowde's death was due to shock and hæmorrhage. Mr. Philip Blenkinsop, the company's manager and a director, said Mr. Garnham had been with the firm for over fifty years, and was a most competent man. He also considered Mr. Spicer a competent engineer, and the firm had entrusted to them the purchase of the centrifugal machine. No complaints were known as to the working of the machine after it came back for the last time. The firm had been in existence eighty years, and had never previously had an accident at the works. The Coroner adjourned the inquiry for a week in order that expert evidence might be called.

Liverpool.

The Liverpool chemists' price-list has met with a good reception, and the sales are going strong.

Lodge Lane and district chemists have agreed upon the following prices for malt and oil: 1-lb. jar, 1s.; 2-lb. jar, 1s. 10d.; and 4-lb. jar, 3s. 6d.; plain malt extract, 11d., 1s. 7½d., and 3s. for the same sizes.

Notwithstanding the war an effort is to be made to have a winter session of the Liverpool Chemists' Association equal to anything in the past. In addition to the usual papers, there are expected to be three special demonstration nights, and one meeting is to be devoted to trade topics.

Mr. T. H. Watterson, director of T. H. Watterson, Ltd., cash chemists, had his right foot seriously injured in a motor-smash recently, and was skilfully treated at Oswestry Cottage Hospital. During his absence Mr. J. C. Kelly, chemist and druggist, Stanley Road, Bootle, is managing the business.

The man who has become notorious as the bogus V.C. was introduced to pharmaceutical circles here recently, and fascinated a few by his handsome appearance in the costume of an officer of a Highland regiment. He borrowed money, too, but it has not transpired that any Scottish pharmacist in the city was so forgetful as to succumb in this direction.

The fixtures and fittings in the pharmacy of Mr. John Alexander, chemist and druggist, 101 South Road, Waterloo, were sold by auction on Monday, September 13. The attendance was good, the bidding brisk, and the sale satisfactory. The whole of the stock and books of prescriptions, dating back over twenty years, had been disposed of by private treaty to Boots, Ltd., and removed to their branch, 68 South Road.

Mr. Prosper H. Marsden, F.C.S., lecturer on Materia Medica and Pharmacy in the University of Liverpool, has devoted much of the vacation to a rearrangement of his laboratories and museum. The cases exhibit, *inter alia*, (1) all the drugs in the British Pharmacopœia, (2) the native drugs of the Congo (collected by the late Dr. G. Everett Dutton), (3) Indian drugs, (4) the drugs of commerce, (5) poisons, (6) poisons likely to be found in imported fodder. The imperial idea is kept in view. Courses of instruction are given to medical, dental, and veterinary students. The last-named are individually equipped with the local knowledge necessary in the

countries to which they are appointed, the list already including the Argentine, Burmah, and South and Central Africa. The value of the museum is seen in the applications for the loan or identification of specimens. Professor G. Harvey Gibson (at present on service) has presented plates from the *Flora Danica* (1796).

Sheffield.

Mr. Bernard Cooper, chemist and druggist, has taken over the management of Eardley & Furnival's Broomhill branch.

Mr. Percival Revill, chemist and druggist, is appointed by Thompson & Capper, Ltd., to manage their pharmaceutical department at Church Street, Sheffield.

Mr. Percy Carr, chemist and druggist, Sheffield, was on September 2 elected Worshipful Master of the Britannia Mark Lodge No. 53 for the ensuing year, and was entered on the books of the Grand Lodge of England and Wales.

Another old-established business has passed away under a sale by auction of the stock and fittings of 115 Broad Lane, which was carried on latterly by the late W. F. Shirlcliffe, who was a member of the Pharmaceutical Committee, and for many years by the Scott family.

Miscellaneous.

POISONS LICENCES.—Two applications for licences under the Poisons and Pharmacy Act have been granted by Walsall Town Council.

FIRE.—While an inflammable mixture was being heated in the pharmacy of Mr. John Liddell, High Street, Buxton, on September 3, it boiled over and caused a conflagration, which was subdued before much damage was done.

Too MUCH LIGHT.—Among a number of persons proceeded against at Market Rasen on September 7 for failing to shade lights properly at their premises at night was Mr. Henry Payne, chemist and druggist, of Market Rasen, who was fined 5s.

AT MIDDLESBROUGH on September 10 Mr. W. T. Coltman, chemist and druggist, was fined 10l. for driving a motor-car in a manner dangerous to the public, and his licence was suspended for six months. He was also fined 2l. for being too worse for liquor.

POISONING CASES.—Three cases of poisoning have been reported this week. Two were suicide cases, oxalic acid and laudanum being the poisons implicated. The third case was one of misadventure through an overdose of chloral hydrate which the victim, a doctor, had taken with the intention of procuring sleep.

A MEETING OF THE CREDITORS of F. Portlock, trading as Portlock's Stores, Wootton-under-Edge, was held at Gloucester on Tuesday, September 14. Among the principal creditors were the United Drug Co., Liverpool, whose claim is 17l. 18s. 11d. The attendance was meagre, only two firms being represented. The estate remains in the hands of the Official Receiver (Mr. C. Scott).

CANADIAN MEDICAL PRACTITIONERS.—Mr. Norman C. King, Registrar of the General Medical Council, announces that, by Order in Council dated August 12, licentiates or members of the College of Physicians and Surgeons of Ontario may henceforth have their names included in the Colonial list of the Medical Register, as well as those holding the degree of the Queen's University, the Western University, and the University of Ontario.

EARLY CLOSING.—The Home Secretary has agreed to the early-closing order for chemists and druggists at Lye and Wollescote, the hours fixed being: Monday, Tuesday, and Wednesday, 8 P.M.; Thursday, 1 P.M. or 8 P.M.; Friday, 3.30 P.M.; and Saturday, 1 P.M. or 10 P.M., special provision being made for the weeks before Easter and Christmas and in Bank-Holiday weeks.—Boston chemists have decided to close their establishments on Saturday evenings at nine o'clock.

ANALYST APPOINTMENTS.—At the Worcester County Council, on September 13, it was reported that Mr. C. C. Duncan, the county analyst, had received an analytical appointment under the War Office. He was granted leave of absence and full salary, less Army allowances. Mr. E. R. Nind was appointed county analyst and deputy agricultural analyst, and Mr. J. Hamilton deputy county bacteriologist. Mr. Nind had previously been appointed analyst to the City Council.

INFANTS' FEEDERS.—The possible danger to health by the use of rubber tubing for feeding-bottles has been the subject of discussion by the Swansea Health Committee, who communicated with local chemists on the matter. Through the Swansea and West Glamorgan Chemists' Association the following reply has been received:

With regard to the circular issued to the chemists concerning the sale of rubber tubing for feeding-bottles, my Association desires me to inform you it is in sympathy with the object in view, but finds that the bulk of this trade is carried on by small shopkeepers and grocers, and that each member of the Association is prepared to use his influence in furthering the use of the hygienic bottles, as chemists have hitherto done. Chemists find it difficult to stop the sale of rubber tubing completely for several reasons: (1) Other shopkeepers and grocers will continue to do so, thereby directing the chemists' trade in other articles to other channels; (2) chemists have large stocks on hand; and (3) voluntary co-operation is seldom successful.

LONDON PHARMACISTS AT BOWLS.—A two-rink match, North v. East, was played on the green of the latter, adjoining Poplar Town Hall, on September 9, resulting in a win for both the Northern rinks.

North			East.		
Mr. McRostie	25	Mr. Hatfield	14
Mr. Payne ...	...		Mr. Hines ...	...
Mr. J. R. Dow ...	...		Mr. Styles ...	...
Mr. Bowie (skip) ...	...		Mr. Keith (skip) ...	...
Mr. Honiatt	27	Mr. Goode	12
Mr. Hearle ...	...		Mr. Colton ...	...
Mr. Grassick ...	...		Mr. Wood ...	...
Mr. W. B. Dow (skip) ...	...		Mr. Wilson (skip) ...	...

The visitors from the North were afterwards entertained to tea at the Great Eastern Hotel, when complimentary speeches were exchanged, Mr. Hearle speaking for the North and Mr. Keith for the East. The return match will be at Wood Green on September 23.

ALLEGED BLACKMAIL CASE.—The hearing of the charge against Hans Paul Studer (29), of demanding 250l. with menaces from Mr. Frederick Schutze, manufacturing druggist's sundriesman, Caledonian Market, London, N., was concluded by Mr. Atherley Jones and a jury at the Old Bailey, London, on Tuesday, September 14 (the fifth day of the trial). The first hearing of the case was fully reported in our issues for July. The accused was manager to the prosecutor, and the allegations were that he told Mr. Schutze that information had been lodged at Scotland Yard accusing him of trading with the enemy and of giving passports to Germans. It was alleged that Studer represented that he knew officials at Scotland Yard, and could obtain certain incriminating documents on payment of 250l. The defence set up was an absolute denial of the charge, a suggestion being made that moneys were due to the accused out of Mr. Schutze's business. The jury failed to agree, and were discharged, the case being put back for retrial at the next sessions. Studer was admitted to bail.

Irish News.

Subscribers are invited to send to the Editor newspapers containing matters of trade interest. The items should be indicated.

Local Government Board Matters.

The Local Government Board has intimated to the Limavady Board of Guardians that, as the result of the proposed increase in the salary of Mr. Walter Thorp, the drug-analyst, to 7l. 10s. per annum, the fee per sample works out at 8s. It is pointed out that other Boards have been able to get drugs analysed at 5s. to 6s. per sample, and the Local Government Board is not prepared to sanction a higher rate of remuneration than 6s. per sample.

The annual report of the Local Government Board for Ireland for the year ended March 31, embodies a statement regarding the supply of drugs and appliances to Guardians, in the course of which it is mentioned that:

The competition for the medicine contracts of 1914-15 was mainly confined to a couple of large firms. The rate of discount allowed off the prescribed prices was slightly less than in the previous year and averaged 27.83 per cent. There was considerable competition for the appliances contracts, and the rate of discount averaged 34.4 per cent. off the prescribed prices. The drugs and instruments supplied under the contracts were up to the usual high standard.

The report proceeds to refer to the stringency in the supply and increased prices of medicines and appliances consequent on the war. In cases where contractors want more than the contract prices, the Board says:

We have intimated our intention to state in each case so submitted the amount in respect of increased prices that in our opinion might equitably be allowed; and also informed the Guardians that the extra payments would be taken into account for recoupment purposes as portion of the medicine expenditure. Reference is also made to the revised edition of the British Pharmacopœia and the effect

of it upon the contracts. The union drug contracts had been in force for a period of nine months, and would determine in the ordinary course on March 31, 1915; and, having regard to all the circumstances and to the terms of the official contract and bond, we were of opinion that for the final three months of the contracts the drugs should be supplied according to the standards of the old Pharmacopœia, and that the annual contracts for 1915-16 should be taken on a list based on the new Pharmacopœia, and we so informed the contractors, the medicine analysts, and the Poor-Law medical officers. The new prescribed lists of medicines and medical and surgical appliances were issued in February last, and contracts for the year beginning on April 1, 1915, were entered into in March by the several Boards of Guardians. The changes in strength and dosage made by the recent Pharmacopœia in certain drugs on our prescribed list were of so important a character that we deemed it prudent to bring the facts, by means of a circular letter, under the special notice of the medical officers lest any serious result might arise from want of due recognition of the alterations. A revision of our schedule of standards for Pharmacopœial preparations issued in 1905 is now necessary, and is under consideration, as well as the question of the adoption in full of the analytical methods of the new Pharmacopœia.

Scottish News.

Subscribers are invited to send to the Editor newspapers containing matters of trade interest. The items should be indicated.

Aberdeen and the North.

Mr. R. W. Garrow, chemist, Keith, as Local Secretary of the Snapshots from Home League, is getting amateur photographers to assist in this useful work.

Mr. William Ogston, chemist and druggist, Inverness, has received a letter from a Belgian soldier, who stated that he is a prisoner of war at Harderwyk, Netherlands, and wanted "a brick of your good soap, and, if possible, a little box of tooth-cream as a war-gift." He got them.

Dundee.

At Invergowrie on Wednesday, September 8, a bowling-match took place between Mr. Wm. Petrie (Johnston & Adams, wholesale druggists) and friends, against retail pharmacists represented by Mr. John Anderson, senior, Mr. James R. Milne, Mr. Wm. Cummings, and Mr. H. Pettie (surgical appliances). After twenty-five ends the score stood 29-27 in favour of Mr. Petrie. At an interval in the afternoon tea was served in the club-house, Mrs. Petrie, assisted by Miss Petrie, presiding.

Edinburgh.

The majority of chemists' shops in Edinburgh and Leith will be closed all day on Monday, September 20, the autumn holiday.

A Fly Exhibition is now being held in the Zoological Gardens, Edinburgh, which is similar in scope to the one recently held in London. Fly-killing preparations are a feature of it.

Fife.

The latest information regarding National Health Insurance in the county is that matters are in a deplorable condition—even worse than last year. The reasons given are (1) Fife has given enormous numbers of men to both the Army and Navy, consequently there has been a slump in Insurance payments; (2) those remaining behind are requiring as much medicine as formerly, and that at very much increased prices. The attention of panel doctors must be still more rigorously directed to the serious state of affairs, as in many instances the motto seems to be "Prescribe as usual." (Another report on p. 60.)

At the urgent request of Mr. Rutherford Hill several chemists and druggists in the county who proposed withdrawing immediately from the dependants' scheme met last week and discussed the situation. The chemists present unanimously resolved that unless immediate action be taken by the responsible authorities to stop the unauthorised and uncalled-for distribution of books they will cease on September 30 to supply free medicine. The resolution has been forwarded to Mr. Hill. What is required is a committee to sift each case, so that books will be supplied by them, and not to households where the income is over £2l. a week.

Glasgow and the West.

Prices in the city and suburbs continue to advance.

The latest showcards for cough and cold remedies bear such statements as "For Belgian Cough Relief."

The Paisley Technical College has intimated that pharmaceutical chemistry is now one of its class subjects.

Mr. William Nisbet, B.L., Secretary to the Radium Supply Committee, 212 West George Street, Glasgow, intimates that medical practitioners may obtain forms for radium treatment from him.

Minor students preparing for the September-October examinations will find beautiful practical illustrations of fruits in the beds at the Botanic Gardens, the peculiarities of the *Umbellifera* order being strikingly shown in large specimens.

French News.

(From the "C. & D." Paris Correspondent.)

FOR PHARMACY VICTIMS.—The first list of pharmaceutical subscriptions on behalf of the victims of the German invasion shows a total of 2,000l.

THE WIDOWS CLAUSE.—M. Astier, the well-known Senator and ex-pharmacist, has proposed a temporary modification to the existing Pharmacy Law extending the right of widows of deceased pharmacists to carry on business under a manager until the end of the war. One year is the present limit.

ARMY PHARMACISTS.—A draft law has been laid before the French Parliament providing that pharmacists who have passed their examination as reserve pharmacists and served two months with the Army as first or second class assistant majors, may be given the same rank in the Regular Army, provided they are under thirty-two years of age and are recommended by their superior officers as suitable. The condition of two months' service may be waived in cases where the pharmacist has distinguished himself by conspicuous bravery or been severely wounded.

MORPHIA AND COCAINE.—The wife of a pharmacist of the rue Vavin, in the so-called "Latin" quarter of Paris, was prosecuted here on Saturday, September 11, on the double charge of the sale of poisonous substances and the illegal practice of medicine. An examination of the premises under a search warrant led to the discovery that the lady, Mme. Decagny, had been in the habit of selling morphia and cocaine for a considerable time without medical prescriptions. She was found guilty on both counts and sentenced to two months' imprisonment and a fine equal to 20l.

ARMY PHARMACISTS.—With a view to ameliorating the military situation of pharmacists called up to join the Colours, M. Barguillet, of Choisy-le-Roi (near Paris), has formed a General Association of Military Pharmacists, Orderlies, and Stretcher-bearers (Reserve and Territorial). The minimum subscription is 1l. (the surplus being appropriated for pharmacists who are victims of the war), and the object is to agitate in every way to improve the status of mobilised pharmacists. The Minister of War has already issued a circular to district military commandants requesting them to utilise pharmacists of every class, and even pharmaceutical students, as hospital orderlies, etc., unless they actually ask to remain in the ranks.

TOXICOLOGICAL LABORATORIES.—The decision of the Government to form a certain number of army laboratories has already been noticed in these columns. The original intention was to appoint 150 pharmacists as heads of toxicological laboratories—i.e., ninety-two in the army zone and fifty-eight in other parts of France. But in view of the new methods of war used by the Germans, it was subsequently decided to increase the number of such laboratories. The majority of the 169 pharmacists already serving with the armies, who lodged applications a few months ago, have therefore been nominated temporary assistant pharmacist-majors in the army zone, and 111 in other parts of France. The number may ultimately be brought up to about 300 in all.

Insurance Act Drug Tariff.

Report of the Departmental Committee appointed to consider it.

Recommendations: The present Tariff to be replaced as from December 31, 1915, by a National Tariff for Great Britain, the prices being those of an approved wholesale list, plus an establishment allowance of 0.8d. on each prescription, and a dispensing-fee for everything dispensed except appliances. Chemists' accounts to be the first charge on the Medical Benefit Fund (thus abolishing the discounting clause) and paid promptly, and chemists to be relieved of pricing prescriptions.

THIS report was published on Thursday, September 16, Vol. I. being a foolscap document of thirty-two pages, price 3d. (by post 4d.), and may be purchased, either directly or through any bookseller, from Wymann & Sons, Ltd., 29 Bream's Buildings, Fetter Lane, E.C., 23 Abingdon Street, S.W., and 54 St. Mary Street, Cardiff; or H.M. Stationery Office (Scottish Branch), 23 Forth Street, Edinburgh; or E. Ponsonby, Ltd., 116 Grafton Street, Dublin; or from the Agencies in the British Colonies and Dependencies, the United States of America, and other foreign countries of T. Fisher Unwin, Ltd., London, W.C. The Committee was appointed on February 1, 1915, by Mr. Masterman, then Chairman of the National Health Insurance Joint Committee, the members being: Sir Rowland Bailey, C.B., M.V.O. (Chairman); John Adams, Esq., M.B., C.M., a member of the Council of the British Medical Association; Alfred Cox, Esq., M.B., Medical Secretary to the British Medical Association; James P. Gilmour, Esq., member of the Pharmaceutical Society of Great Britain; J. F. Tocher, Esq., D.Sc., F.I.C., Aberdeen; R. V. Vernon, Esq., of the Treasury; S. P. Vivian, Esq., an Assistant Secretary in the National Health Insurance Commission (England); and W. J. Uglow Woolcock, Esq., Secretary and Registrar to the Pharmaceutical Society of Great Britain. Sir Henry J. Gibson, K.C.B., Comptroller and Auditor-General, was the first appointed Chairman, but he resigned before the Committee met, and Sir R. Bailey took his place. Dr. E. W. Adams, medical officer in the English Commission, and Mr. James Rao were Joint Secretaries. Fourteen witnesses were examined—viz., J. W. Deakin (Northwich), J. Rutherford Hill (Edinburgh), Leo Joseph (Cardiff), James Kirkpatrick (London, E.), and J. H. Nidd (Manchester), nominated by the Pharmaceutical Society of Great Britain. Mr. G. Shiach Kitchin (Glasgow), as a member of the Pharmaceutical Standing Committee on Insurance for Scotland, was another pharmacist witness. Drs. Percy V. Fry (Sowerby Bridge) and E. L. Lilley (Leicester), nominated by the British Medical Association; and Dr. John Orr (Edinburgh), of the Scottish Committee of the Association; Drs. C. W. Hogarth (Woolwich, S.E.) and W. Frothingham Roach (Knightsbridge, S.W.) were nominated by the London Panel Committee, as well as Dr. V. S. Partridge (Coldharbour Lane, S.E.) by the Panel Medico-Political Union. Two of the witnesses appear not to have been nominated—viz., J. Denton, chief checker of prescriptions to the West Riding Insurance Committee, and E. F. Harrison, analytical and consulting chemist.

The evidence is not yet available; it is Vol. II. of the Committee's report.

We now give the text of the main part of Vol. I., and supplement it with appropriate mention of the Appendices.

Departmental Committee appointed to consider the Drug Tariff under the National Insurance Acts.

TO CHARLES ROBERTS, Esq., M.P., Chairman of the National Health Insurance Joint Committee.

SIR,

1. In accordance with the Minutes of our Appointment, which are printed on page 3, we have the honour to report that we have sat on 20 days and have examined 14 witnesses, a list of whom appears on page 4.

2. We have also conducted certain investigations which may be conveniently classed under three heads, viz.:

(a) Investigations of prescriptions actually dispensed in 1913 and 1914 under the Insurance Acts in order to obtain the following data:

- (i) Actual cost price to chemists of drugs, etc., supplied.
- (ii) Tariff price.

(iii) Dispensing fee.

(iv) Medicament class.

(v) Frequency with which individual drugs were ordered and frequency with which various quantities of the same drug were ordered.

(b) Investigations of chemists' businesses in order to ascertain the profit earned prior to inception of medical benefit under the National Insurance Act, 1911, and subsequently thereto.

(c) A dispensing test with a view to determining the ratios in which the several medicament classes stand to one another, having regard to the relative claims of each class upon the dispenser's skill and time.

3. The investigations under head (a) were carried out by means of a staff employed by the Committee for the purpose. Those under head (b) were conducted by Messrs. W. B. Peat & Co., Chartered Accountants, in accordance with instructions issued by the Committee. Summaries of the results obtained from these investigations are given in this Report and its Appendices. Details of the dispensing test will be found in the Minutes of Evidence (Tenth Day).

4. We propose to deal in the following order with the matters referred to us:

I. The present financial and administrative arrangements (of which the Drug Tariff forms a part) for the supply of medicine under the Insurance Acts.

II. Analysis of the principles and working of the Drug Tariff at present in force.

III. The revision necessary to place the Drug Tariff on a commercial basis.

IV. Summary of Conclusions.

I.—THE PRESENT FINANCIAL AND ADMINISTRATIVE ARRANGEMENTS (OF WHICH THE DRUG TARIFF FORMS A PART) FOR THE SUPPLY OF MEDICINE, &C., UNDER THE INSURANCE ACTS.

5. These arrangements are made for each County or County Borough area by the local Insurance Committee on uniform lines prescribed by the Medical Benefit Regulations. The actual supply is arranged for by means of contracts between the Committee and any qualified persons carrying on business in the area. Those contracts incorporate a list of prices payable by the Committee (subject to the provision referred to in paragraph 9), for the various specified drugs and appliances, and for the services of the chemist in dispensing them. This list constitutes the Drug Tariff. The drugs specified in the Tariff are those usually prescribed; any others not specified are required to be priced according to rules laid down in the Tariff.

6. The medicine for the individual patient is prescribed for him by the practitioner in attendance, upon an official form. This is handed to the patient, and it serves the combined purpose of an order upon any one of the contracting chemists to supply the patient with the medicine and a voucher to enable the chemist to claim payment from the Committee.

7. It will be seen that the practitioners in the area are thus solely responsible in their individual discretion for the amount and character of the medicine supplied to insured persons, and this circumstance accounts for the financial system upon which the drug-supply is based, the system being so constructed as to afford practitioners an inducement to exercise their discretion in a reasonably, but not unduly, economical manner.

8. To defray the cost of medicine, etc., each Insurance Committee sets aside in each year out of its medical benefit funds for that year a sum calculated at the rate of 2s. per head of its insured population entitled to medical benefit. The cost of the medicines supplied is paid out of this fund. Any balance not exceeding 6d. per head of the insured population after payment of all drug charges for the year is distributed among the practitioners. But as practitioners have no motive of self-interest to reduce the cost of the drug supply below 1s. 6d. per head provision is thus secured for the maintenance of a fully adequate drug supply. Any balance remaining out of the sum of 1s. 6d. per head after payment of the total drug accounts for the year is carried forward to the drug funds for the ensuing year.

9. As, however, the amount available for defraying the cost of the drug supply in any year is limited to a total of 2s. per head, the medical benefit regulations (which are incorporated in the chemists' contracts) contain what has been described as a discounting provision under which, when the aggregate accounts of all chemists in the area exceed the total amount of the 2s. per head, all chemists' accounts are rateably reduced to bring them within this total fund available.

10. It will thus be seen that the prices specified in the Tariff are not absolute prices which the Insurance Committee binds itself in all circumstances to pay or which the chemist is entitled in all circumstances to receive, but are maximum prices subject to a variable rate of discount; and any question as to the fairness of the present arrangements will depend, not only upon the degree of practical risk involved in the liability to discount, but also upon the extent, if any, to which the Tariff prices may be abated without loss of reasonable profit to the chemist. As, however, we are required by our terms of reference to consider the present Drug Tariff apart from discounting, the origin or history of the discounting clause need not further concern us.

11. The regulations clearly assume that the only question involved is as to the distribution of a fixed annual sum between practitioners and chemists. Generally speaking, the amount of the drug bills for an area and the prices upon which those bills are based concern practitioners and chemists alone, as the parties solely affected by the cost of the drug supply. No amount of economy or rigour in the matter of prices can enable the Insurance Committee to effect any saving in its disbursements, inasmuch as the whole of its annual income is distributed to either practitioners or chemists; nor, on the other hand, is the Insurance Committee financially concerned to resist any upward tendency of prices, inasmuch as its liability is limited and its payments cannot exceed its income.

12. The regulations contemplate therefore that the Tariff prices for the drug supply would be a matter of negotiation between the medical and pharmaceutical professions, either centrally or locally, area by area, and assume that the two bodies might be relied upon, in view of their opposite financial interests and expert knowledge of the subject matter, to agree upon a Tariff which in principle and detail would be substantially reasonable and satisfactory to both parties. It will be remembered, however, that during the period which immediately preceded the inception of medical benefit the medical profession, owing to circumstances into which it is unnecessary to enter, were not prepared to take part in any such negotiations either centrally or locally; and the natural and not unreasonable consequence was that a Tariff framed by the Standing Committee on Insurance of the Pharmaceutical Society was propounded by the local bodies of pharmacists and adopted by Insurance Committees in all areas without any real investigation or scrutiny. Modifications in details have been subsequently made, mainly at the instance of local bodies, including those representing practitioners, but any such revision has of necessity left untouched the essential principles and framework of the original Tariff.

II.—ANALYSIS OF THE PRINCIPLES AND WORKING OF THE TARIFF AT PRESENT IN FORCE.

13. We now proceed to an analysis of the principles upon which the Tariff is based. These are identical as

regards the Tariffs in force in every part of Great Britain, since neither the small local variations above referred to nor the more substantial divergencies between the tariffs in Scotland and those in England and Wales have touched the principles upon which the original Tariff was founded.

14. The Tariff provides that there shall be charged *a price for every ingredient in a prescription*, and (with certain exceptions) *a dispensing fee in respect of the prescription as a whole*.

15. The charge for each ingredient comprises, however, a profit at a varying ratio upon the cost to the chemist of the actual quantity of the particular drug ingredient, and we understand that the actual ingredient price was intended to afford the chemist a margin for "trade profit" or establishment charges. We gather that the intention of the framers of the Tariff was that the chemist should look, in the main, to the dispensing fee for remuneration in respect of his personal services.

16. *Ingredient Prices*.—The calculation of the ingredient price is of importance when considering the adequacy, or otherwise, of the return it gives to the chemist for that portion of his expenses for which it is intended to recoup him. The effect of the method adopted is to give a percentage rate designedly higher in the case of smaller than of larger quantities. The precise price arrived at, however, by the addition of the fixed percentage rate appropriate to the particular quantity is, further, adjusted to the nearest halfpenny up in certain cases, and the nearest halfpenny up or down in others. The minimum price for any ingredient is a halfpenny, and every other price is calculated in multiples of halfpence.

17. This adjustment has a very material effect upon the actual percentages charged in the case of a very large number of ingredients as the quantities prescribed are frequently very small. In the great majority of cases it involves an increased charge which, though limited in absolute amount to something less than a halfpenny upon every ingredient, produces an increased percentage rate upon each ingredient varying within very wide limits—the lower the unadjusted price the greater being the increase in the percentage rate.

18. The effect of the system may almost be said to show a different rate of charge upon every particular quantity of every particular drug. The aggregate yield to the chemist under this head is the absolute cost to him of the actual drugs *plus* a percentage determined by the relative preponderance (both as regards weight and frequency) of the higher and lower rates among the several ingredient prices.

19. *The Dispensing Fee*.—The dispensing fee is a charge per prescription which represents the remuneration of the chemist for his professional work. The amount varies with the nature of the prescription, being determined by a scale in the Tariff graded partly according to the class of medicament which is dispensed and, in some instances, by reference to other considerations (see paragraph 34).

20. It must at once be recognised that the Tariff was prepared at a time of great urgency to meet circumstances which could not be foreseen, and as to which no guidance was afforded by previous experience. Now, on a review of nearly three years' working, we are brought to the conclusion that the present Tariff has faults of construction which are responsible for serious inequity to individual chemists.

21. The Tariff is pervaded by a system of balances and compensations upon which its authors relied to ensure the fairness of its ultimate yield. Thus anomalies in relative over-pricing in the case of particular drugs are set off against other anomalies of a contrary tendency; anomalies in the dispensing fee scale are balanced against the effects of certain features of the ingredient pricing method.

22. This system of balances and compensations has proved in working to be unsatisfactory for various reasons. In the first place it has rendered the Tariff incapable of proper adaptation to meet the needs of changing circumstances. Assuming that the ultimate yield of the Tariff,

when originally constructed, was fair, the fact remains that the yield, being the net resultant on balance of a large number of varying circumstances, could only continue to be fair so long as the circumstances were unchanged. The original balance, being based not upon any constant law but solely upon the circumstances of prescribing by practitioners at some particular time, would be destroyed as soon as those circumstances altered. This, we believe, has, in fact, happened; and we are satisfied that the habits of practitioners in prescribing have been modified and are likely still to be modified to such an extent as to render inaccurate any calculations based upon the nature of those habits at any given time.

23. Again, while we believe that a tariff so constructed must become obsolete on these grounds by the mere lapse of time, it is also especially difficult, or even impossible, to adapt such a tariff to keep pace with fluctuations in the market price of drugs. The minimum halfpenny and the halfpenny gradation system will in a very great number of cases render it impossible to modify the original price without effecting an excessive increase or reduction, with the inevitable result that any previously correct balance would, again, be bound to be disturbed.

24. Further, we think it important that any tariff which has to be constantly handled and applied by some 15,000 practitioners and 10,000 chemists should be constructed upon simple and self-evident principles. It is an instrument which determines not only the remuneration of chemists, but also, in part, that of doctors, and upon the equity and reasonableness of which it is essential that the members of both professions should be able to rely; and it is not to be expected that sufficient confidence could be reposed upon a document which requires for its justification a detailed knowledge of a series of empirical compromises.

25. But apart from these general objections the structure of the present Tariff is responsible for certain more positive defects which are prejudicing the smooth and equitable working of the drug supply arrangements.

26. As previously stated, the ingredient prices are intended to cover not only the cost to the chemist of the drugs dispensed by him, but also that portion of his establishment charges which is applicable to his Insurance dispensing. This latter portion of the return is represented by the produce of a mean percentage rate upon the aggregate cost of the drugs; and the absolute value of that produce in money will depend (a) upon the percentage rate, and (b) upon the absolute money value of the drugs upon which the percentage is based. Thus the chemist's receipts under this head will depend not only upon whether the percentage is 50 or 60, but also upon whether the cost of the drugs on which the percentage is reckoned is 100*l.* or 1,000*l.*

27. It has been stated that the mean percentage rate upon drug cost works out at an approximately identical figure in the case of each chemist on his Insurance dispensing when taken in bulk. This, however, is not the case. From the prescription analysis carried out by our own staff we have satisfied ourselves that as between area and area the mean percentage rate upon the cost of the drugs varies between 53 and 74.3 (see Appendix I.); and that the range of variation is even greater as between chemist and chemist. Similarly, as regards the absolute money value of the dispensed drugs upon which the percentages are based, this again varies considerably as between area and area and even more considerably as between chemist and chemist. Our prescription analysis exhibits variations in the cost of drugs between 2.34*d.* per prescription and 4.04*d.* per prescription in different areas (see Appendix I.), and it will be obvious that the yield of a given percentage rate upon the latter figure will be almost double that upon the former. It is not the case, moreover, that there is any law by which these two factors, cost of drugs and percentage rate, vary inversely so as to produce an approximately uniform yield. While the minimum halfpenny undoubtedly affords some slight compensation by producing a higher percentage rate upon the cheaper drugs, this influence has no substantial effect, and we have found (as will be seen from the figures given in Appendix I.) not only instances of a low percentage

rate associated with a low cost of drugs per prescription, and *vice versa*, but overwhelming evidence that the net money yield of the combined factors varies within quite as wide a range as either of the factors themselves.

28. It is clear, therefore, that the ingredient pricing system in the present Tariff yields in practice to different chemists by way of return for their establishment charges, &c., sums differing very widely in amount. Unless these discrepancies in remuneration can be shown to be governed by, and of necessity to coincide with, variations in the establishment expenses for which they are intended to recoup the chemists, it will be admitted that the system which can produce such discrepancies calls for amendment. It remains, therefore, to examine whether these discrepancies have any relation to variations in the individual chemists' establishment expenses.

29. Now both the factors which are responsible in combination for the discrepant yield are governed solely by the conduct of practitioners in prescribing. The relative expensiveness of the drugs and preparations which the practitioner prescribes depends upon his own professional training and habits, his knowledge of pharmacy, and the degree to which the desirability of economy is appreciated by him or impressed upon him by his Panel Committee. Indeed the action taken by Panel Committees has in many areas materially reduced the cost of the drugs ordered, and is accountable to a considerable extent for the marked differences as between area and area of the average cost of drugs per prescription. Again the percentage rates conveyed by the individual ingredient prices vary according to the drug and the quantity of the drug prescribed. This factor therefore also depends upon the detailed nature of the practitioner's prescribing under the Insurance Act; but so far from it having any casual relation to the cost of establishment charges, it is so entirely un-governed by any law tending to constant results that the mean percentage rate produced by the present ingredient pricing system may quite fairly be described as accidental.

30. It is obvious that this system is responsible for grave injustice in the conveyance of remuneration as between chemist and chemist. Assuming two chemists both in a business of a similar character with an approximately equal rate of establishment expenses and both doing an equal amount of Insurance dispensing, our prescription analysis shows that one of the two may receive an allowance for the establishment charges apportionable to his Insurance dispensing of treble the amount which the other receives. This anomaly would be due, not to any causes controlled by either chemist, but to the habits in prescribing of the group of practitioners whose prescriptions they respectively dispense. Even between area and area we find allowances varying between 5*l.* 15*s.* 1*d.* per 1,000 prescriptions and 9*l.* 11*s.* per 1,000 prescriptions, the chemists as a whole in the one area receiving nearly double the allowance received by the chemists as a whole in the other. If, on the other hand, it is assumed that two chemists are carrying on business in somewhat different circumstances, one of them having a somewhat higher rate of establishment expenses than the other, it is not even reasonably probable under the present Tariff that the former will receive a higher rate of allowance for establishment charges. As the issue is in the hands of the practitioners whose prescriptions he is dispensing, it is just as likely that he will receive the lower rate of allowance and that his colleague will receive the higher rate. The unfairness of such an arrangement will at once be appreciated.

31. Even if, therefore, the total demand which the present Tariff makes upon Insurance funds as a whole were the lowest sum for which the whole drug supply could reasonably be provided, and in that sense the total payment for the supply were agreed to be commercial, it would nevertheless be obvious that no tariff could be adjudged to be on a commercial basis so long as it gives to some chemists much more than is fair and reasonable, and to others much less. The discrepancies in the distribution of remuneration resulting from the present ingredient pricing system are so great that it is by no means impossible that a particular chemist would be underpaid, even though excessive payments were made

for the Insurance drug service as a whole; and we believe that much of the dissatisfaction with the present Tariff which has been expressed by members of the pharmaceutical profession may be traced to actual hardship suffered on account of those circumstances.

32. The main cause of the difficulty is the principle of charging the allowance for establishment expenses in the form of a percentage upon the cost of drugs. However amended or adjusted, the produce of any percentage must vary with the sum upon which it is based. But a chemist's establishment expenses do not depend upon the value of the drugs which he dispenses. The establishment expenses apportionable to a given 1,000 prescriptions are not less by half than the establishment expenses apportionable to another 1,000 prescriptions, involving doubly expensive drugs. But it is obviously fair that the allowance for establishment charges should be based upon the amount of Insurance business done by the chemist. The correct measure of this is the number of Insurance prescriptions which he dispenses, and we have arrived at the conclusion that the allowance for establishment charges which the chemist's remuneration must necessarily include should be conveyed to him in the form of a rate per prescription instead of a percentage upon the cost of drugs, thus obviating the inequity which is inseparable from the latter system.

33. We turn now to the dispensing-fee scale. This has been subjected to some criticisms by the witnesses who have given evidence before us from the point of view of chemists no less than from that of doctors.

34. This scale, which is graded mainly, but not wholly, by reference to the different medicament classes, is rendered less scientific and accurate than it might have been by the part it plays in the system of balances and compensations prevalent here as well as elsewhere in the Tariff. It is, of course, the case that there are differences in the degree of time and skill required in the dispensing of different kinds of medicaments; and it is right that such differences should be recognised by the amount of the fee assigned for dispensing any particular medicament. The present scale appears, however, to have departed from any strict principle of grading by reference to the time and skill involved in the particular dispensing operation, and to represent a series of flat rates compiled presumably after consideration of the relative frequency of the various kinds of operations to be performed by the chemist in the ordinary run of his Insurance dispensing.

35. The inevitable consequence of such an arrangement is that these flat rates are inadequate or excessive wherever the precise balances upon which the fees were fixed do not obtain. It is, in particular, urged by the representatives of Scottish pharmacists that the proportion of easy to difficult prescriptions which the scale assumes is not found in Scotland, where a higher proportion of the more difficult medicament classes, such as pills and powders, is habitually prescribed by the medical profession and that the Scottish pharmacists are, in fact, required to perform a greater amount of professional work than the present dispensing scale allows payment for.

36. We attach considerable weight to these objections; and we are satisfied that, generally speaking and with some notable exceptions, the average preponderance of the more difficult medicament classes is, on the whole, greater in Scotland than in England and Wales (*see Appendix II.*). But the remedy suggested by the Scottish pharmacist witnesses—viz., that another series of higher flat rates should be fixed for Scotland alone, affords no real solution of the problem. It is in the first place extremely undesirable on general grounds that there should be any departure from the principle of a single universal tariff, uniform in all its essentials for all parts of Great Britain. The problem, though mainly a Scottish one, is not exclusively so; there are areas in England in which the prescribing approximates to the Scottish type and there are similarly, in Scotland, areas in which the prescribing resembles the English type. Moreover, a system of balanced flat rates is not likely to be fair to the particular circumstances of every chemist's dispensing; and on this ground alone we should dissent from the retention of the system.

37. We therefore recommend a single scale of dispensing fees which will do justice to all parts of Great Britain and all chemists alike. We do not regard this as by any means an impossible task, but if success is to be secured, all vestiges of the system of balances and compensations must be eliminated, and the scale must be graded solely and strictly by reference to the relative degree of time and skill involved in the task of dispensing each medicament class. With such a scale in operation, graded throughout so as to afford a reasonable fee for every class of dispensing operation from the easiest to the most difficult, it must follow that proper payment will be made for all the dispensing performed, whatever its nature; and we feel satisfied that this is the right, and indeed the only, way in which anomalies, such as those brought to our notice by the representatives of Scottish pharmacists, can be properly rectified.

III.—THE REVISION NECESSARY TO PLACE THE TARIFF ON A COMMERCIAL BASIS.

38. It will be seen from the foregoing that the structure of the present Tariff requires revision in respect of the matters indicated in order that it may be placed upon a commercial basis; and it may be convenient to recapitulate our previous recommendations as to the constitution of the Tariff before proceeding to amplify them in detail or to carry them to their logical conclusions:—

(a) The principles upon which the Tariff is constructed should be simple and self-evident.

(b) Each of the component parts of the price payable for any prescription should give to the chemist a return or remuneration for some specific group of his expenses or services. The principles adopted in any such classification should be strictly adhered to, all balancing or averaging being entirely abolished as between the component parts of the total price, and reduced to the narrowest possible range within each component part.

(c) There should be a scale of dispensing-fees per prescription graded solely by the degree of professional time and skill required in the dispensing of the several classes of medicaments. It will follow from this principle, as well as from the recommendation contained in paragraph (b) above, that this part of the price should convey remuneration for those services alone which ought to be remunerated at the rate payable for professional services. When those services have been disposed of by means of this scale of dispensing-fees proper, it follows that we have yet to provide for the charges in respect of establishment expenses, including personal services other than professional services, and the actual cost to the chemist of the drugs dispensed in the prescription.

(d) We have already recommended that establishment expenses should be charged in the form of a rate per prescription, and we are of opinion that the amount of this rate should be fixed so as to afford a return for all establishment charges and personal services, excluding those remunerated by the scale of dispensing-fees proper. There is now nothing left but the cost to the chemist of the actual drugs contained in the medicines dispensed by him, and the cost of the appliances which he supplies.

(e) From the fact that our previous recommendations provide for every part of the chemist's remuneration or return other than the cost of the drugs and appliances supplied, it follows that he should receive no more than his actual outlay on this item. We are of opinion that the actual cost to the chemist of the particular quantity of every separate drug ordered by the practitioner as an ingredient in the prescription should be separately priced with as great a degree of precision as circumstances permit.

39. The Tariff printed as Appendix V. has been prepared in accordance with the foregoing principles.

40. In calculating the cost prices of the drugs and appliances in the Tariff, reference has been made to the price-lists of various wholesale houses current at the date of the preparation of this Report. In the case of drugs listed by wholesale firms at different prices for different grades, we have selected in every case a good medium quality, although a lower grade would have satisfied the British Pharmacopœia standard. Where the grade selected is known by any accepted trade description, we have specified it by that description in the Tariff. But, as we have found this course impossible in certain cases, we think that it is necessary to adopt some other means of indicating the particular quality which the chemist is expected to supply, and accordingly

recommend that the chemist's contract should include an obligation to supply in the case of every drug a grade of quality costing him approximately the price allowed for in the Tariff.

41. It will be appreciated that inexpensive drugs prescribed in comparatively small quantities, the cost price of which would be considerably less than a halfpenny or even a farthing, are so numerous and so frequently prescribed that the margin in price which would be afforded by even the latter sum as a universal minimum would amount to a considerable over-payment in the aggregate. We have felt it necessary, therefore, that the prices should be calculated to the nearest second decimal place of a penny at least.

42. The dispensing-fees included in the Tariff compromise in each case an allowance of .8d. per prescription for establishment charges. In arriving at this figure we have given very careful consideration to the results obtained from the analysis of chemists' businesses by Messrs. W. B. Peat & Co., and we are convinced that this allowance is adequate and reasonable. The remaining portion of each dispensing-fee has been determined with careful regard to the relative claims of each class of prescription upon a dispenser's time and skill.

43. Calculations have been made by Messrs. W. B. Peat, upon data supplied by us, as to the extent to which the chemists' remuneration would have been affected in the case of the English and Scottish businesses investigated had the Tariff which we recommend been in force since the inception of medical benefit. From the results, which are given in Appendix VII., it will be seen that, notwithstanding the reduction in prices involved in our proposals, they would have secured the chemists, upon a considerably increased turnover, a net rate of profit slightly higher than that obtained prior to the Insurance Act.

44. In putting forward the Tariff we deem it advisable to draw attention to certain questions which inevitably arise in connection therewith, viz. :—

- (a) The "discounting" clause.
- (b) Arrangements for the revision of the Tariff.
- (c) Arrangements for pricing prescriptions.

45. *The "Discounting" Clause.*—As the rates of remuneration in the Tariff which we recommend have been fixed on a commercial basis it follows that they will not admit of any discounting. The chemists must receive full and reasonably prompt payment of their accounts, and the present discounting clause must, therefore, be abolished.

46. *Arrangements for the Revision of the Tariff.*—The cost prices have, as already stated, been calculated after reference to various price-lists current at the date of the preparation of this Report. They will require revision immediately prior to the adoption of the Tariff. With regard to subsequent arrangements in this respect, whilst we do not think a general revision will in normal circumstances be necessary except at yearly intervals, we consider it desirable that provision should be made whereby the prices of individual drugs can be revised during the year in any exceptional cases in which revision is necessary either in the interests of the chemists or the Drug Fund. We further advise that during the war the present arrangement should be continued whereby the prices of drugs specially subject to war fluctuations should be revised at frequent and regular intervals. We are also of opinion that any revision of prices, whether of a general nature or otherwise, should be conducted by the central bodies representative of the various interests affected, and should be made uniformly applicable, so far as possible, to the whole of Great Britain.

47. *Arrangements for Pricing Prescriptions.*—It is obvious that any system of pricing which reckons in smaller gradations of money value than the present halfpenny gradations is bound to increase the labour of pricing and checking prescriptions. We have given much thought to this matter in view of the recommendation which we have felt compelled to make that the prices in the Tariff should be calculated, where necessary, to the second decimal place of a penny.

48. While the necessarily greater detail in the pricing calculations which this recommendation involves might

present difficulty if the obligation to price prescriptions were placed, as at present, upon the chemist by whom the prescriptions were dispensed, we see no reason why the present procedure in this respect should not be modified. The pricing of prescriptions by the chemist has, we understand, in any event to be checked in the Insurance Committee's Offices before his account is accepted; and we are of opinion that this arrangement involves a duplication of work which might with advantage be avoided by the substitution of an arrangement for the simultaneous pricing and checking of the prescriptions by an expert staff on behalf of the Insurance Committee. We are informed moreover that a central bureau has already been established in Scotland, with the complete good will of pharmacists, for the pricing and checking of all prescriptions, thus relieving the individual chemist of the initial task of pricing his prescriptions, and we believe that the body of panel chemists in general would be willing to repose confidence in the performance by the Insurance Committee of the operations of pricing, subject, of course, to reasonable opportunities being afforded for challenge and security.

49. We suggest therefore that the duty of pricing as well as of checking should be undertaken by the Insurance Committee. This will enable the necessarily technical work of pricing to be performed by expert staff with the maximum of economy and will afford individual chemists a measure of relief from their present obligations.

50. The degree of precision in ingredient pricing which we think necessary can, of course, be obtained by various methods. As will be seen from the following paragraphs two alternative methods are put forward, either of which will, we believe, sufficiently secure our objects.

51. The first method, which may be called the "ready reckoner" method, involves the use of a ready reckoner or "square" table, showing the charge to be made for any particular quantity of a drug at any particular cost price per lb. This table, which is constructed for permanent use, is accompanied by a list in alphabetical order of all the drugs conveniently included in the Tariff with the proper price per lb. shown in the case of each. If the price per lb. of any particular drug is known or ascertained from the last mentioned list the ingredient price for the specified quantity of that drug as an item in the prescription can be obtained by reference to the ready reckoner.

52. The second alternative method is fully explained in Appendix VI. We believe that it will enable the pricing of prescriptions to be performed at somewhat greater speed than is possible by the first-mentioned method, especially if the pricing operations are undertaken in the manner we recommend. As its results are not necessarily mathematically identical with the results of the first method (although in our opinion affording a sufficiently close approximation to bare cost price for all practical purposes), we presume that its use would require to be authorised by some specific provision in the Tariff which forms part of the chemist's agreement.

53. In recommending methods of ingredient pricing which are, if anything, more elaborate than the present method, we have not overlooked the possibility of the adoption of any simpler method in the interests of administrative convenience and economy.

54. We have carefully weighed every proposal which appeared to offer advantages in this respect. In particular, suggestions have been made that the charge for drugs should be based upon either a flat rate or series of flat rates per prescription, or a flat rate or series of flat rates per ingredient. Though such a system would, of course, enormously simplify the pricing calculations, we have reluctantly arrived at the conviction that it is at present, and will be for some considerable time at any rate, entirely unworkable. A reference to the figures of average drug cost per prescription in various areas given in Appendix I. will demonstrate the very considerable differences which exist in the drug cost at between area and area, differences which exhibit even wider variations as between chemist and chemist. Moreover, the habits of practitioners in prescribing have changed so much even during the period for which medical benefit has been

in operation that it is inevitable that the cost of the drugs prescribed by them must also have fluctuated very considerably, and we see no likelihood of these fluctuations settling down to any general level which could be made the basis of practical proposals on our part.

55. We see no prospect, therefore, so long as the present state of flux remains, of any flat rate system being adopted as regards the price of drugs without an indefensible risk of serious injustice to chemists or serious overpayments by Insurance Committees. Even if flat rates were fixed for a given period by reference to the actual cost for the preceding period, and thus constantly revised in the light of experience, it would be necessary, throughout the period of operation of any particular rate or rates, to conduct a continuous and elaborate analysis, not only of the cost for each area, but also of the cost for each chemist, if the subsequent revision is to be properly performed. Thus the method would defeat its own ends and prove less administratively economical than the system we recommend.

IV.—SUMMARY OF CONCLUSIONS.

56. Our conclusions may be summarised as follows:

I. That the present Tariff requires revision to place it on a commercial basis.

II. That the Tariff printed as Appendix V., providing for payment of:

(a) The cost price of the drugs, etc., supplied;
(b) A flat rate per prescription for establishment expenses; and
(c) A fee per prescription for any professional services, graded according to the nature of the prescription, should be adopted for the whole of Great Britain.

III. That the present discounting clause should be abolished.

IV. (a) That a general revision of the prices in the Tariff should be undertaken annually, provision being made whereby prices of individual drugs can be revised during the year in exceptional cases.

(b) That during the war the present arrangement should be continued, whereby the prices of certain drugs specially liable to war fluctuations are revised at frequent intervals.

(c) That any revision, whether of a general nature or otherwise, should be undertaken by the central bodies representative of the various interests involved.

(d) That any revision should be made uniformly applicable, so far as possible, to the whole of Great Britain.

V. That the contracts of the chemists should include an obligation to supply a grade of drug costing them approximately the price allowed in the Tariff.

VI. That the pricing of prescriptions should be undertaken by Insurance Committees.

57. In conclusion, we desire to place on record our appreciation of the services rendered by the Joint Secretaries. The work which has devolved upon them has been peculiarly onerous both in its volume and its nature. It has been performed with an assiduity and ability of which we cannot speak too highly.

We have the honour to be, Sir, your obedient servants,
ROWLAND BAILEY, JOHN ADAMS, ALFRED COX,
JAMES P. GILMOUR, J. F. TOCHER, R. V.
VERNON, S. P. VIVIAN, W. J. UGLOW
WOOLCOCK.

E. W. ADAMS, JAMES RAE, *Joint Secretaries*.
September 14, 1915.

MEMORANDUM A. By Mr. GILMOUR.

As the representative of Scottish panel chemists on the Departmental Committee appointed to consider the Drug Tariff under the National Insurance Acts, I hereby declare that, in signing the above Report, I do not subscribe to Paragraphs 36, 37, 42, and 43, the Summary of Conclusions II. (b) and (c), and the Dispensing Scale printed in Appendix V.

JAMES P. GILMOUR.

MEMORANDUM B. By Dr. TOCHER.

I agree with the contents of the Report excepting Paragraph (32) and Paragraph (42).

With regard to Paragraph (32) the allowance per prescription contemplated is based upon an average establishment charge, and there will thus be a difference between the actual allowance which should be given per prescription to each pharmacist based upon his own establishment charges and the recommended allowance based upon the average establishment charge. It is clear that there will be differences between the actual establishment charges of pharmacists and the average establishment charge. I

affirm that if a general average establishment allowance is given to each pharmacist, the differences between the proper and the allotted allowance will be equivalent to, and will in reality represent, in most cases, (1) actual loss or gain on the price of drugs, if the dispensing fee is regarded as an irreducible minimum based on the Committee's tests and always paid; (2) actual reductions or increases in the dispensing fees if the cost price of drugs is regarded as paid in each case; and (3) actual loss or gain in both drugs and fees, if cost price of drugs and amount of fees are both regarded as fixed, as they should be, in all cases. I am quite ignorant as to the extent which these differences will cause loss or gain to the individual pharmacist.

With regard to Paragraph (42), I regard 0.8 penny per prescription as quite a doubtful figure because the data the Committee were able to collect are, in my opinion, insufficient with respect to the number of pharmacists from which particulars have been collected and are lacking with respect to the kind of information required for the purpose in view. Because of the incomplete data I am unable to come to any conclusion as to what the allowance should be.

I am of opinion that the cost price in Appendix V. (Part II.) should have been shown in pence per 1,000 grains for solids, and in pence per 1,000 minims for liquids—i.e., one-seventh of the figure given in each case. Pharmacists would then see that the price in pence per 1,000 grains or minims will give also the price in .06 pence per drachm and the price in .001 pence per grain, which if properly applied is the object of the method in Appendix VI. The values .06 penny and .001 penny are new denominations of money value, or new "coins" for a specific purpose. Considerable errors of two kinds will arise in pricing if the method as it is described in Appendix VI. is adhered to. If, however, there were two columns, one for .06 penny and one for .001 penny respectively, and all prices entered in these denominations, no errors of either kind will result.

J. F. TOCHER.

MEMORANDUM C. By Mr. WOOLCOCK.

In signing the above Report I desire to indicate my disagreement with the figure fixed for establishment charges.

W. J. UGLOW WOOLCOCK.

APPENDICES.

I.—Cost of Insurance Prescriptions.

This is a table of figures showing, as regards Insurance prescriptions issued in the period January 15, 1913, to June 1914, average cost price and Tariff price per prescription, average percentage profit, average dispensing-fee per prescription, and average establishment allowance to chemist per 1,000 prescriptions.

IN ENGLAND eleven areas were examined. The average cost price per prescription was 3.09d., the average Tariff prices 4.95d. and 6.99d., exclusive and inclusive of dispensing-fees (representing 60.2 and 126.1 per cent. profit on cost price), and the average dispensing-fee was 2.04d. The average establishment allowance to chemists for 1,000 prescriptions was 7l. 15s. (the lowest being 5l. 15s. 1d. and the highest 9l. 5s. 2d.).

IN SCOTLAND six areas were examined, and the cost price per prescription was 3.78d., the average Tariff price 5.94d. and 8.04d., exclusive and inclusive of dispensing-fees (representing 57.1 and 112.6 per cent. profit on cost price), and the average dispensing charge was 2.10d., while the establishment allowance was 8l. 19s. 11d. (lowest 8l. 5s. 9d., highest 9l. 6s. 6d.).

IN WALES two areas were examined. The average cost price per prescription was 3.48d., the average Tariff price 5.32d. and 7.30d., exclusive and inclusive of dispensing-fee (58.7 and 109.8 per cent. profit on cost price), average dispensing-fee 1.78d., and the establishment allowance was 8l. 10s. 3d. (lowest 6l. 7s., highest 9l. 11s.).

THE THREE COUNTRIES work out at average cost per prescription, 3.25d.; average Tariff price, 5.17d. and 7.20d., exclusive and inclusive of dispensing-fee (59.4 and 122 per cent. profit on cost price); and average dispensing-fee, 2.03d., the average dispensing allowance being 8l. 0s. 8d. per 1,000 prescriptions.

III.—Table showing Profits earned on commonly ordered Drugs.

The names of the thirty drugs found to be the most frequently ordered are: Aq. dest., sod. bicarb., inf. gent. co., tr. nuc. vom., aq. chlorof., aq. menth. pip., sp. ammon. arom., ammon. carb., sod. sal., sp. chlorof., ex. cas. sag. liq., glycerin., ext. malti c. ol. morrh., ferri et am. cit., tr. camp. co., mag. sulph., liq. arsenicalis, pot. brom., vin. ipecac., pot. bicarb., pot. iodid., quin. sulph., liq. morph. hyd., liq. strych. hyd., syr. Easton., tr. card. co., inf. senega, inf. caryoph., acid. sulph. dil., syr. aurant. The percentage of profit is worked out as from 0.29 in the

case of inf. gent. co. to 1020.86 for sod. bicarb. A loss is shown in the case of aq. chlorof., aq. menth. pip., and inf. caryoph. It is added that the results were obtained from an analysis of a comparatively small sample of prescriptions taken from each of seven areas.

II.—Nature of Prescriptions.

This is a table showing in percentages how the various medicament classes are distributed in panel prescriptions dispensed in the eleven English areas, six Scottish, and two Welsh. The average percentages are as follows:

100 Prescriptions	England	Scotland	Wales
Mixtures	70.56	49.98	60.82
Capsules and tablets ...	2.39	1.68	4.52
Pills	2.95	3.80	3.04
Liniments	3.33	5.25	4.45
Powders	2.24	10.34	2.39
Appliances	3.77	5.50	9.75
Lotions	2.41	2.32	1.70
Emulsions	0.38	3.05	0.72
Other solids	1.14	2.33	1.31
Other liquids	5.69	8.24	4.92
Ointments	3.66	5.61	4.29
Plasters	0.44	0.58	1.33
Proprietaries	0.97	1.17	0.74
Suppositories	0.05	0.15	0.02

IV.—Establishment Allowance.

This is a summary of results obtained by W. B. Peat & Co. from examination of chemists' businesses in Great Britain. Two periods are compared—viz., 1911-1912 and 1913-1914. We give the figures of the first period in italics:

I.—Total Average Annual Receipts, *51,445l. 13s. 6d.*, 64,027l. 14s. 10d.; (a) Of Insurance Drug Business, 8,866l. 10s. 2d.; (b) Of Private Drug Business, 33,735l. 12s. 10d.; 35,021l. 1s. 8d.—43,887l. 11s. 10d.; (c) Of other Business, 17,710l. 0s. 8d., 20,140l. 3s.

II.—Total Average Annual Outgoings, *41,011l. 14s.*, 49,983l. 1s. 5d.; (a) Total Average Annual Cost of all Material, 30,366l. 2s. 5d., 37,003l. 4s. 4d.; (b) Total Average Annual Establishment Charges, *10,645l. 11s. 7d.*, 12,979l. 17s. 1d.

III.—(a) Average Annual Cost of Material used in Drug Business, *17,789l. 8s. 11d.*, 22,675l. 7s. 10d.; (b) Average Establishment Charges apportionable to Drug Business, *7,131l. 17s. 8d.*, 9,152l. 17s. 4d.

IV.—(a) Average Annual Cost of Material used in other Business, *12,576l. 13s. 6d.*, 14,329l. 16s. 6d.; (b) Average Annual Establishment Charges apportionable to other Business, *3,509l. 13s. 11d.*, 3,826l. 19s. 9d.

V.—Average Annual Profit on *Whole Business*:—(a) Gross: (1) Amount, *21,079l. 11s. 1d.*, 27,024l. 10s. 6d.; (2) Percentage on Buying Price, *69.4 per cent.*, 73 per cent.; (3) Percentage on Selling Price, *41.0 per cent.*, 42.2 per cent. (b) Net: (1) Amount, *10,430l. 19s. 6d.*, 14,044l. 13s. 5d.; (2) Percentage on Buying Price, *31.3 per cent.*, 37.9 per cent.; (3) Percentage on Selling Price, *20.3 per cent.*, 21.9 per cent.

VI.—Average Annual Profit on *Drug Business*:—(a) Gross: (1) Amount, *15,946l. 3s. 11d.*, 21,214l. 4s.; (2) Percentage on Buying Price, *89.6 per cent.*, 93.6 per cent.; (3) Percentage on Selling Price, *47.3 per cent.*, 48.3 per cent. (b) Net: (1) Amount, *8,802l. 6s. 3d.*, 12,061l. 6s. 8d.; (2) Percentage on Buying Price, *19.5 per cent.*, 53.2 per cent.; (3) Percentage on Selling Price, *26.1 per cent.*, 27.5 per cent.

VII.—Average Annual Profit on *Other Business*:—(a) Gross: (1) Amount, *5,133l. 7s. 2d.*, 5,810l. 6s. 6d.; (2) Percentage on Buying Price, *10.8 per cent.*, 40.5 per cent.; (3) Percentage on Selling Price, *29.0 per cent.*, 28.8 per cent. (b) Net: (1) Amount, *1,628l. 13s. 3d.*, 1,983l. 6s. 9d.; (2) Percentage on Buying Price, *12.9 per cent.*, 13.8 per cent.; (3) Percentage on Selling Price, *9.2 per cent.*, 9.3 per cent.

V.—Tariff of Prices and Dispensing Fees for Drugs and prescribed Appliances supplied under the National Insurance Acts.

PART I.—EXPLANATORY NOTES.

(1) A charge is to be made for each ingredient in a prescription, together with a dispensing-fee in respect of the prescription as a whole. The amount of each ingredient charge, which is to represent the cost to the chemist of the actual quantity dispensed of the particular ingredient, is determined by the ready-reckoner (*see Part IV.*) used in conjunction with the Table of Drug Prices (*see Part II.*). The dispensing-fee includes not only remuneration in respect of professional services, where such services are rendered, but also an allowance, at a rate per prescription, in respect

of all outgoings in the form of establishment expenses. The amount of the dispensing-fee in the case of any particular prescription is determined by reference to the Scale of Dispensing-fees (*see Part III.*).

(2) In the Table of Drug Prices the drugs and preparations, etc., are arranged in alphabetical order. Of the two prices shown opposite each item, that in the right-hand column is the "pound" price in pence (*vide infra*), by reference to which the correct charge for any quantity of the drug can be found in the ready-reckoner. The price in the left-hand column is the wholesale list-price of the drug upon which the adjusted "pound" price is based. The wholesale list-price is given for the convenience of chemists and doctors, and in order that the chemist may be aware, in the case of a drug commonly listed by wholesale firms at different prices for different grades of quality, which grade he is required to supply.

In the case of Waters, Decoctions, and Infusions, where these are prepared from concentrated preparations, the price in the first column refers to the wholesale listed price of the concentrated substance, while the figure in the second column refers to the ex-concentrata solution.

(3) The Table of Drug Prices is to be used in conjunction with the ready-reckoner. To find the charge for any particular quantity of a particular drug, it is first necessary to ascertain from the table the "price per pound" of that drug. On reference to that "price per pound" in the ready-reckoner, the proper charge for any quantity of the drug will be found in the line opposite.

(4) In order that the ready-reckoner may be made applicable without undue complication to the case of both solid and liquid drugs, the prices shown in the Table of Drug Prices have been adjusted, where necessary, so as to represent the price for a "pound" of 7,000 grains or minims. Thus the price specified in the table for any particular drug is always the proper price for a quantity having, in the case of both solids and liquids, an identical relation to the ounce of 480 grains or minims, the drachm of 60 grains or minims, the grain or minim, and all intermediate quantities. The line of charges shown opposite each "pound" price in the ready-reckoner will therefore apply with equal accuracy to all drugs in the table at that price, whether solid or liquid.

(5) In thus adjusting the price in respect of liquid drugs, account has necessarily been taken of variations in specific gravity.

(6) In the case of drugs priced in wholesale lists at a higher rate per oz. than per lb., which are usually purchased by chemists by the ounce, the prices in the table have been based upon the oz. rate, though stated in the form of a price per lb.

(7) The intermediate quantities priced out in the ready-reckoner are those which experience has shown to be most frequently ordered. The charge for any intermediate quantity not shown can be readily calculated from the figures given. The minimum price for any quantity is 0.01d.

(8) In the case of drugs and appliances not included in the Tariff list the same principles apply. The cost price is obtained from a wholesale price-list agreed upon locally. In the case of drugs the price must be adjusted, where necessary, to conform to the requirements of the ready-reckoner in the manner indicated above by reducing them to terms of pence per "pound" of 7,000 grains or minims. The following formula gives the necessary adjustment required with regard to liquid drugs or preparations:

$$\text{Price in pence per lb. avoirdupois} \times \text{specific gravity} \times 7,000 \\ = \text{price in pence per "pound" of 7,000 minims.}$$

The result thus obtained should be adjusted, if necessary, to the nearest halfpenny.

[We print the Tariff in full, beginning on the next page.]

Appendix VI. is a memorandum explaining an alternative method of pricing prescriptions in which key numbers are used for each drug.

Appendix VII. is a statement showing the result of calculations made by W. B. Peat & Co. on data furnished by the Drug Tariff Committee as to the extent to which chemists' remuneration would have been affected in the case of the English and Scottish businesses investigated had the Tariff recommended by the Committee been in operation since the inception of Medical Benefit. The receipts from Insurance drug business in England is recalculated as 5,796l. 3s. 1d., against 7,068l. 9s. 7d., and in Scotland 1,121l. 19s. 10d., against 1,189l. 16s. 4d.

In an article beginning on p. 55 we comment upon a memorandum in regard to the report which has been presented to doctors for their consideration, and refer briefly to the points in the report which specially interest panel chemists.

PART II.

TABLE OF DRUG PRICES.

Drug or Preparation	Listed Price	Price in Pence per Pound	Drug or Preparation	Listed Price	Price in Pence per Pound	Drug or Preparation	Listed Price	Price in Pence per Pound
Acacie Gummi Pulv. ...	3s. 3d. lb.	39	Borax Pur. ...	33s. 6d. cwt.	3½	Ext. Malti. ...	7½d. lb.	—
Acetanilidum ...	7s. 2d. lb.	86	Butyl-Chloral. Hyd. ...	3s. 4d. oz.	640	„ Malti. c. Ol. Morrhi. ...	—	—
Acetum Cantharidini ...	2s. 6d. lb.	28½	Caffeina ...	2s. oz.	384	„ B.P.C. ...	8½d. lb.	—
„ Ipecac. ...	2s. 6d. lb.	27	Caffein. Cit. ...	1s. 7d. oz.	304	„ Nucis Vom. Sicc. ...	11d. oz.	176
„ Scilla ...	5½d. lb.	5½	Calamina ...	2s. lb.	24	„ Opii Sicc. ...	5s. 8d. oz.	1088
Acid. Acetic. ...	6d. lb.	5½	Calc. Carb. Precip. ...	24s. 6d. cwt.	2½	„ Viburn. Liq. ...	8s. lb.	82½
„ Glacial. ...	1s. 1d. lb.	12½	„ Chlorid. ...	11d. lb.	11	Ferri Carb. Sacc. ...	1s. lb.	12
„ Acetylsal. ...	3s. oz.	576	„ Glycerophosph. ...	9d. oz.	144	„ et Ammon. Cit. ...	4s. 9d. lb.	57
„ Benzoi (Synthetic) ...	10½d. oz.	168	„ Hypophosph. ...	4d. oz.	64	„ et Quin. Cit. ...	1s. oz.	192
„ Boric (Crystals) ...	47s. cwt.	5	„ Lact. ...	10s. 6d. lb.	126	„ Sulph. ...	4d. lb.	4
„ Boric (Pulv.) ...	52s. 6d. cwt.	5½	Calx Sulphurata ...	3d. oz.	48	„ „ Exsic. ...	9d. lb.	9
„ Carbolie (detached) ...	—	—	Camphora (flowers) ...	2s. 11d. lb.	35	„ et Pot. Tart. ...	3s. 6d. lb.	42
„ „ crystals ...	2s. 10d. lb.	34	Capsule Amyl. Nitris m. 3 ...	1s. doz.	—	Gent. Rad. ...	7½d. lb.	7½
„ Carbolie. Liq. ...	2s. 4d. lb.	27½	„ „ 5 ...	1s. 6d. doz.	—	Glycerinum ...	1s. 2½d. lb.	16½
„ Citric. Pulv. ...	4s. 1d. lb.	49	„ Copaiaba m. 10 ...	1s. 4d. 100	—	Glycer. Acid. Boric ...	2s. 3d. lb.	33
„ Hydrobrom. Dil. ...	2s. 4d. lb.	27½	„ Crocoti m. 2 ...	1s. 1d. 100	—	„ Acid. Carbol. ...	1s. 11d. lb.	25½
„ Hydrochlor. ...	6½d. lb.	4½	„ Ol. Santal. m. 10 ...	6s. 100	—	„ „ Tannic ...	3s. lb.	42½
„ Hydrochl. Dil. ...	4½d. lb.	4½	„ Pil. Ferri (Blaud) ...	10d. 100	—	Glycerin. Belladon. B.P.C. ...	4s. 6d. lb.	63
„ Hydrocyan. Dil. ...	4d. oz.	58	„ 1 pill strength ...	—	—	„ Boracis ...	1s. 7d. lb.	22
„ Nit. Dil. ...	5d. lb.	5	„ 2 pill strength ...	1s. 100	—	„ Pepsin. ...	4s. 3d. lb.	55
„ Nitrohydrochl. Dil. ...	5d. lb.	5	„ 3 pill strength ...	1s. 2d. 100	—	Glycer. Thymol. Co. ...	1s. 1d. lb.	12½
„ Phosph. Dil. ...	6d. lb.	6	„ „ Arsen. ...	1s. 1d. 100	—	B.P.C. ...	2s. 2d. oz.	416
„ Picric. ...	6d. oz.	96	„ Pil. Ferri et Arsen. et Strich. ...	1s. 3d. 100	—	Guaiacoli Carbouas ...	6d. oz.	96
„ Salicylic. ...	1s. 6d. oz.	288	„ „ Hamoclobin. ...	1s. 2d. 100	—	Hexamina ...	1s. 2d. grain	—
„ Sulph. Aromat. ...	4s. 6d. lb.	45½	„ „ gr 3 ...	1s. 2d. 100	—	Homatrop. Hydrobrom. ...	1s. 2d. grain	—
„ „ Dil. ...	5d. lb.	5	Carbo Ligni ...	5d. lb.	5	Hydrarg. Iod. Rubr. ...	1s. 6d. oz.	288
„ Sulphuros. ...	3d. lb.	3	Chloroform B.P. ...	2s. 10d. lb.	46	„ Oxid. Flav. ...	8d. oz.	128
„ Tannic. ...	6s. 8d. lb.	80	„ „ Camph. B.P.C. ...	4s. 3d. lb.	53½	„ Perchlor. (Pulv.) ...	6s. 8d. lb.	80
„ Tartaric. ...	2s. 6d. lb.	30	Chloral Formamid. ...	2s. 4d. oz.	448	„ Subchlor. ...	7s. 4d. lb.	88
Adeps Prep. ...	1s. lb.	12	„ Hydras ...	12s. 3d. lb.	147	„ Ammon. (Pulv.) ...	7s. 8d. lb.	92
„ Benz. ...	1s. 2d. lb.	14	Cocain Hydrochlor. ...	3s. 8d. drin.	—	„ c. Creta. ...	2s. 10d. lb.	34
„ Lanæ ...	4s. 9d. lb.	57	Codeina ...	5s. drin.	—	„ Oleat. ...	5d. lb.	5
„ Lanæ Hydrosus ...	4s. lb.	48	Codein. Phosph. ...	4s. 6d. drin.	—	Inf. Aurantii (1-7) ...	2s. 6d. lb.	4
„ Ether B.P. 0-720 ...	2s. 2d. lb.	17	Collod. Aceton. B.P.C. ...	4s. 9d. lb.	44½	„ Buchu (1-7) ...	4s. 9d. lb.	7
„ Aloinum. ...	5½d. oz.	88	„ Belladon. B.P.C. ...	11s. 6d. lb.	104½	„ Calumb. (1-7) ...	1s. 5d. lb.	2½
„ Alum. Purif. ...	8d. lb.	8	„ Flexile Meth. ...	2s. 8d. lb.	23	„ Caryoph. (1-7) ...	1s. 9d. lb.	3
Ammon. Benz. (artificial) ...	10d. oz.	160	„ Salicylic. Co. B.P.C. ...	7s. 6d. lb.	64	„ Cascarill. (1-7) ...	1s. 9d. lb.	3
„ „ Brom. ...	9s. 6d. lb.	114	„ „ B.P.C. ...	8s. 6d. lb.	72½	„ Cinch. Acid. (1-7) ...	3s. 8d. lb.	5½
„ „ Carb. ...	1s. 4d. lb.	16	„ Vesicans. ...	20s. lb.	180½	„ Digitalis (1-7) ...	1s. 8d. lb.	5
„ „ Chlor. ...	1s. lb.	12	Conf. Guaiaci Co. B.P.C. ...	2s. 11d. lb.	35	„ Gent. Co. (1-7) ...	1s. 5d. lb.	2½
„ „ Ichthosulph. ...	7½d. oz.	120	„ „ Piperis. ...	1s. 5d. lb.	17	„ Krameria (1-7) ...	1s. 10d. lb.	3
„ „ Phosph. ...	2s. 4d. lb.	28	„ „ Sennæ ...	1s. 2d. lb.	14	„ Quassia (1-7) ...	1s. 1d. lb.	2
Amyl. Nitris ...	8½d. oz.	108½	„ „ Sulphuris ...	1s. 4d. lb.	16	„ Rhei (1-7) ...	2s. 2d. lb.	3½
Amylum (Maize) ...	5d. lb.	5	Copaiba ...	2s. 6d. lb.	27	„ Ros. Acid (1-7) ...	3s. 2d. lb.	5
Anthem. Flor. Belz. ...	1s. 9d. lb.	21	Cresot. Carb. ...	1s. 1d. oz.	221	„ Sennæ (1-7) ...	3s. 2d. lb.	5
Aq. Aurant. Flor. (trip.) ...	10d. lb.	3½	Cresotum ...	10s. lb.	118	„ Senegæ (1-7) ...	3s. 2d. lb.	5
„ „ Rose (trip.) ...	10d. lb.	3½	Cret. Prep. ...	2½d. lb.	24½	„ Serpentaria (1-7) ...	3s. 2d. lb.	5
„ „ Sambuci ...	5d. lb.	4½	Dec. Aloes Co. ...	1s. 4d. lb.	14½	„ Valerian (1-7) ...	1s. 9d. lb.	3
„ „ Anethi ...	5d. lb.	4½	„ Cinchon. Rub. (1-7) ...	3s. 8d. lb.	5	Iodoformum ...	1s. 10d. oz.	352
„ „ ex Concentrata ...	3s. 10d. lb.	1½	„ „ Hematox. (Conc. (1-7) ...	1s. 6d. lb.	2½	Iodum ...	1s. 9d. oz.	336
„ „ Anisi ...	4d. lb.	3½	„ „ Sarsæ (Conc.) (1-7) ...	4s. 9d. lb.	7	Lin. Aconit. Meth. ...	2s. 6d. lb.	23½
„ „ ex Concentrata ...	4s. 3d. lb.	1½	„ Senegæ (Conc.) (1-7) ...	3s. 5d. lb.	5	„ Ammon. ...	1s. 8d. lb.	17
„ „ Camph. ...	5d. lb.	4½	Diamorph. Hydrochl. ...	4s. drin.	—	„ Belladon. Meth. ...	5s. lb.	48½
„ „ ex Concentrata ...	3s. 10d. lb.	1½	Digitalinum ...	5d. grain	—	„ Calcis ...	8d. lb.	7
„ „ Carni ...	4d. lb.	3½	Digit. Pol. Ang. ...	2s. 4d. lb.	28	„ Camph. ...	1s. 5d. lb.	14½
„ „ ex Concentrata ...	4s. 3d. lb.	1½	Elixir Pini Co. B.P.C. ...	4s. lb.	4	„ „ Am. Meth. ...	1s. 4d. lb.	12½
„ „ Chlorof. ...	4d. lb.	3½	Emp. Ammoniaci c. Hydrarg. ...	1s. 4d. per yd.	—	„ „ Chlorof. ...	3s. 4d. lb.	44
„ „ ex Concentrata ...	4s. 8d. lb.	2	„ „ Calefac. ...	11d. per yd.	—	„ Hydrarg. ...	2s. 6d. lb.	30
„ „ Cinnam. ...	5d. lb.	4½	„ „ Cantharidin. ...	3s. per yd.	—	„ Methvl. Sal. Co. ...	12s. lb.	144½
„ „ ex Concentrata ...	5s. 9d. lb.	2	„ „ Hydrarg. ...	1s. 4d. per yd.	—	B.P.C. ...	5s. 2d. lb.	52½
Aq. Foeniculi ...	4d. lb.	3½	„ „ Picis ...	7d. per yd.	—	„ Pot. Iod. c. Sap. ...	3s. 4d. lb.	40
„ „ (c.c.) ...	4s. lb.	1½	„ „ Plumbi ...	6d. per yd.	—	„ Sap. Meth. ...	11d. lb.	9
„ „ (1-40) ...	5d. lb.	4½	„ „ Resine ...	5d. per yd.	—	„ Terebinthinae ...	1s. 1d. lb.	11
„ „ Menth. Pip. ...	4s. 3d. lb.	1½	„ „ Saponis ...	6d. per yd.	—	„ Tereb. Acet. ...	1s. 10d. lb.	18½
„ „ (c.c.) ...	5d. lb.	4½	„ „ Belladon. ...	1s. 5d. per yd.	—	Liq. Adrenal. Hydrochl. ...	3s. 2d. oz.	557
„ „ Exotic (1-40) ...	5d. lb.	4½	Emul. Olei Morrhuæ B.P.C. ...	1s. 6d. lb.	16½	„ „ Ammon. ...	5d. lb.	4½
„ „ Virg. ...	5d. lb.	4½	„ „ Ol. Morrhi. c. ...	1s. 6d. lb.	16½	„ „ Port. ...	6½d. lb.	5½
„ „ Pimentæ ...	4s. 6d. lb.	1½	„ „ Hypoph. B.P.C. ...	8s. 6d. gal.	9½	„ „ Acet. ...	4d. lb.	4
„ „ (c.c.) ...	6d. gal.	½	„ „ Petroleic. Hypoph. B.P.C. ...	3s. 4d. lb.	40	„ „ Am. Acet. Conc. (1-7) ...	1s. 1d. lb.	13
„ „ Dest. ...	1s. 11d. oz.	368	Ext. Aloes Pulv. ...	2s. 6d. oz.	480	„ „ Ammon. Cit. ...	11d. lb.	10½
Argent. Nit. ...	2s. 1d. oz.	400	„ „ Liq. ...	13s. 4d. lb.	132½	„ „ Arsenicalis ...	7d. lb.	6½
„ „ Indur. ...	1s. 10d. oz.	352	„ „ Vir. ...	8s. 6d. lb.	102	„ „ Arsenici Hydrochl. ...	9d. lb.	8½
„ „ Mitigat. ...	2s. 10d. oz.	544	„ „ Caunab. Ind. ...	7s. 4d. oz.	1408	„ „ Arsen. et Hydrarg. Iod. ...	1s. 1d. lb.	12
„ „ Proteinat. ...	4s. 3d. oz.	816	„ „ Case. Sagr. Sicc. ...	5½d. oz.	88	„ „ Atrop. Sulph. ...	1s. 7d. oz.	280
„ „ Nucleinas ...	14s. 3d. drin.	—	„ „ „ Liq. ...	2s. 2d. lb.	25	„ „ Bism. et Am. Cit. ...	1s. 6d. lb.	17½
Atrop. Sulph. ...	1s. 11d. oz.	385½	„ „ Cinchona Liq. ...	4s. 3d. lb.	52	„ „ Calcis ...	7d. gallon	7½
Bals. Peruv. ...	3s. 10d. oz.	736	„ „ Coloc. Co. ...	9½d. oz.	152	„ „ Sacch. ...	8d. lb.	7½
Barbitonum ...	4s. 4d. drin.	—	„ „ Ergote ...	2s. 10d. oz.	544	„ „ Sulphuratae ...	6d. lb.	6
Bism. Carb. ...	1s. 6d. oz.	288	„ „ Ergote Liq. ...	7s. 6d. lb.	83½	„ „ Cresol. Sap. ...	8s. gallon	9
„ „ Oxid. ...	1s. 10d. oz.	352	„ „ Filic. Liq. ...	1s. 9d. oz.	306½	„ „ Epispasticus ...	18s. lb.	161
„ „ Salicyl. ...	1s. 11d. oz.	368	„ „ Glycyrrh. Liq. ...	15s. lb.	166½	„ „ Ferri Acet. ...	7d. lb.	6½
„ „ Subgal. ...	11s. 9d. lb.	141	„ „ Hyoscyam. Liq. ...	—	—	„ „ Perchlor. ...	7d. lb.	9½
„ „ Subnit. ...	—	—	—	—	—	„ „ Gutta Percha B.P.C. ...	5s. lb.	78
—	—	—	—	—	—	„ „ Formalddehyd. ...	11d. lb.	11
—	—	—	—	—	—	„ „ „ Sap. ...	2s. 6d. lb.	26
—	—	—	—	—	—	„ „ Hamamelidis ...	1s. 4d. lb.	14½
—	—	—	—	—	—	„ „ Hydrarg. Perchlor. ...	7d. lb.	6½

• See Part I, Paragraph 4.

Drug or Preparation	Listed Price	Price in Pence per Pound	Drug or Preparation	Listed Price	Price in Pence per Pound	Drug or Preparation	Listed Price	Price in Pence per Pound
Liq. Hydrogen Perox. B.P. ...	7d. lb.	6½	Phl. Quin. Sulph. (gr. ii) ...	1s. 5½d. gross	—	Suppos. Plumbi Co. ...	7d. doz.	—
" Hydrogen Perox. (20 vols.) ...	1s. 1d. lb.	12	" Rhei Co. ...	4½d. gross	—	" Glycerini Infants: (15 m.) ...	6d. doz.	—
" Mag. Bicarb. ...	5½d. lb.	5	" Saponis Co. (gr. iv) ...	1s. gross	—	" Child's: (30 m.) ...	7d. doz.	—
" Morph. Acet. ...	5s. lb.	53½	" Scam. Co. (B.P. '98) ...	2s. gross	—	" Adult's: (60 m.) ...	—	—
" Hydrochl. ...	5s. lb.	53½	" Seille Co. ...	8d. gross	—	Syrupus ...	6d. lb.	7½
" Opii Sed. B.P.C. ...	9s. 9d. lb.	106	" Ferri ...	3d. gross	—	Syr. Aurantii ...	1s. lb.	14
" Pancreatis ...	3s. 10d. lb.	44½	Plumbi Acet. ...	1s. lb.	12	" Calc. Lactophosph. ...	1s. 9d. lb.	24½
" Pepticus B.P.C. ...	4s. lb.	44½	Podoph. Res. ...	1s. 7d. oz.	304	" Casearia Aromat. ...	1s. 9d. lb.	24½
" Picis Carbonis ...	5s. 6d. lb.	51½	Potassa Sulphurata ...	1s. 6d. lb.	18	" Chloral. ...	2s. 10d. lb.	40½
" Meth. ...	1s. 5d. lb.	13½	Potass. Acet. "dry granules" ...	2s. 1d. lb.	25	" Codeina Phosph. ...	2s. 10d. lb.	41
" Plumbi Subacet. Fort. ...	4d. lb.	4½	" Pot. Bicarb. ...	1s. 1d. lb.	13	" Ferri Iod. ...	1s. 8d. lb.	24½
" Potassæ ...	5d. lb.	4½	" Brom. ...	9s. 6d. lb.	114	" Phosph. ...	1s. lb.	14
" Sodæ Chlorinat. ...	4d. lb.	4	" Carb. ...	1s. 6d. lb.	18	" B.P.C. Co. ...	7½d. lb.	9
" Strych. Hydrochl. ...	2s. 1d. lb.	22½	" Chloras ...	1s. 11d. lb.	23	Syr. Ferri Phosph. c. ...	1s. 6d. lb.	21
" Trinitrini ...	7d. oz.	86	" Cit. ...	5s. 3d. lb.	63	Syr. Glycerophosph. Co. ...	2s. 1d. lb.	29½
" Zinc. Chlor. ...	1s. lb.	16½	" Iod. ...	15s. 9d. lb.	189	Syr. Hypophosph. Co. ...	1s. 5d. lb.	20
Lithii Carb. ...	7½d. oz.	120	" Nit. ...	1s. 2d. lb.	14	Syr. Limonis ...	1s. 1d. lb.	15½
" Cit. ...	7d. oz.	112	" Permang. ...	3s. 2d. lb.	38	" Pruni Virg. ...	11d. lb.	13
Lith. Cit. Effervesc. ...	2s. 10d. lb.	34	" Sulph. ...	11d. lb.	11	" Rhei ...	1s. 3d. lb.	18
Lot. Hydrarg. Flav. ...	5d. lb.	4½	" Tart. ...	3s. 10d. lb.	46	" Seille ...	7½d. lb.	9
" Nigr. ...	7d. lb.	6½	" Acid. ...	2s. 3d. lb.	27	" Sennæ ...	1s. 4d. lb.	19
Magnesia Leviss ...	1s. 3d. lb.	15	Pulv. Amygd. Co. ...	3s. 9d. lb.	45	" Toht. ...	9½d. lb.	11
" Pond. ...	2s. 6d. lb.	30	" Catech. Co. ...	2s. 10d. lb.	34	Syr. Zinzib. ...	10d. lb.	12
Mag. Carb. Lev. ...	7½d. lb.	7½	" Cinamomi Co. ...	4s. 9d. lb.	57	Tab. Acetanilid. (gr. iii) ...	6½d. 100	—
" Pond. ...	10d. lb.	10	" Crete Aromat. ...	1s. 5d. lb.	17	" Acetan. Co. B.P.C. ...	7d. 100	—
" Sulph. (Medium Crystals) ...	45s. ewt.	5	" c. Opi. ...	3s. lb.	36	" Acid. Acetylsal. (gr. v) ...	34s. 1,000	—
" Effervesc. ...	1s. 6d. lb.	18	" Glycyrrh. Co. ...	1s. 4d. lb.	16	" Acid. Diethylbarb. (gr. v) ...	4s. 2½d. 100	—
Mel. Boracis ...	1s. 3d. lb.	15	" Ipecac. Co. ...	8s. 6d. lb.	102	" Calomel (Tab. Hydr. Subchl. B.P.C.) ...	2s. 6d. 1,000	—
Menthol. ...	1s. 1d. oz.	208	" Jalap. Co. ...	3s. 2d. lb.	38	" " (gr. i) ...	3s. 1,000	—
Methylsulphonal. ...	2s. 2d. oz.	416	" Kino Co. ...	5s. 6d. lb.	66	" " (gr. ii) ...	7d. 100	—
Methyl. Salicylas ...	11d. oz.	190½	" Lobelia Co. B.P.C. ...	2s. 8d. lb.	32	" " (gr. iii) ...	8½d. 100	—
Mist. Ammoniaci (1-7) ...	6s. lb.	9	" Opi Co. ...	6s. lb.	72	" " (gr. v) ...	1s. 100	—
" Cresoti (1-7) ...	1s. 5d. lb.	2½	" Rhei Co. ...	2s. lb.	24	" Easton. (1 dr.) ...	8s. 1,000	—
" Crete ...	8d. lb.	7½	" Scammon. Co. ...	7s. lb.	84	" (½ dr.) ...	5s. 1,000	—
" Ferri Co. ...	11d. lb.	10	" Sodæ Tart. Eff. ...	7s. 6d. doz.	—	" Ext. Casc. Sagr. ...	4½d. 100	—
" Guaiaci. ...	9d. lb.	8½	" Tragac. Co. ...	2s. 10d. lb.	34	" " (gr. ii) ...	9d. 100	—
" Ol. Ricini ...	1s. 1d. lb.	12	" Quin. Hydrochl. ...	2s. 5d. oz.	464	" Hydr. c. Creta B.P.C. (gr. ½) ...	4½d. 100	—
" Sennæ Co. ...	11d. lb.	11	" Acid. ...	2s. 9d. oz.	528	" " (gr. i) ...	1s. 9d. 1,000	—
Morph. Acet. ...	2s. 11d. dr.	—	" Sulph. ...	1s. 10d. oz.	352	" " (gr. ii) ...	5½d. 100	—
" Hydrochl. ...	17s. 6d. oz.	—	Resorcinum ...	1s. 10d. oz.	352	" " (gr. iii) ...	8s. 1,000	—
Mucilag. Acacie ...	1s. 1d. lb.	13½	" Rhei. Rhizoma Pulv. E.F. ...	4s. 6d. lb.	54	" " (gr. v) ...	5s. 1,000	—
" Tragac. ...	1s. lb.	11	" Sacc. Lact. ...	1s. lb.	13	" Easton. (1 dr.) ...	8s. 1,000	—
Naphthol. ...	1s. oz.	192	" Alb. Pulv. Subtil. ...	7d. lb.	7	" (½ dr.) ...	5s. 1,000	—
Ol. Amygdale ...	3s. 6d. lb.	35	" Salicin. ...	1s. 7d. oz.	304	" Ext. Casc. Sagr. ...	4½d. 100	—
" Abietis ...	4s. 3d. lb.	42½	" Salol ...	1s. 7d. oz.	304	" Hydr. c. Creta B.P.C. (gr. ½) ...	4½d. 100	—
" Anisi ...	5½d. oz.	79	" Sautonin. ...	14s. 3d. oz.	2736	" " (gr. i) ...	1s. 9d. 1,000	—
" Cadini ...	1s. 2d. lb.	13	" Sapo Mollis ...	11d. lb.	11	" " (gr. ii) ...	5½d. 100	—
" Cajuput. ...	5s. 6d. lb.	55½	" Scammon. Res. ...	6s. lb.	72	" Formaldehydi B.P.C. ...	4s. 6d. 1,000	—
" Caryoph. ...	6s. 10d. lb.	79	" Sennæ Folia ...	1s. 8d. lb.	20	" Guaiacol. Carb. (gr. v) ...	2s. 4d. 100	—
" Croton. ...	7d. oz.	97	" Sod. et Pot. Tart. ...	1s. 5d. lb.	17	" Phenacetin. (gr. v) ...	1s. 11d. 100	—
" Cubebæ ...	1s. 7d. oz.	255	" Sodii Arseus Anhydrosus ...	5s. 3d. lb.	63	" Phenac. Co. B.P.C. ...	17s. 6d. 1,000	—
" Eucalypt. ...	2s. 5d. lb.	24½	" Sod. Benz. ...	11d. oz.	176	" Phenac. Co. B.P.C. (gr. v) ...	3s. 8½d. 100	—
" Lini ...	3s. 7d. gallon	4	" Bicar. (Opt.) ...	25s. ewt.	3	" Phenolphthalein (gr. i) ...	10d. 100	—
" Ment. Pip. (Re-dis-tilled) ...	15s. 6d. lb.	154	" Brom. ...	9s. lb.	108	" " (gr. ii) ...	1s. 2½d. 100	—
Ol. Morrhuæ (1915) ...	15s. 6d. gallon	17	" Carb. ...	4d. lb.	4	" Pot. Chlor. ...	2s. 4d. 1,000	—
" Olivæ (Sublime) ...	9s. 6d. gallon	10½	" Exsicc. ...	8d. lb.	8	" Thyroid Gland (gr. ii) ...	7½d. 100	—
" Ricini E. I. No. 1 (Bleached) ...	9d. lb.	8	" Chlor. ...	10½d. lb.	10½	" Trinitrini ...	1s. 3d. 100	—
Ol. Santal. ...	2s. 10d. oz.	30½	" Citro-Tart. (Eff.) ...	2s. 4d. lb.	28	" Santonin (gr. i) ...	4s. 8½d. 100	—
" Tereb. Rectif. ...	10d. lb.	8	" Glycerophosph. (100%) ...	1s. 11d. oz.	368	" Santonin Co. B.P.C. ...	4s. 8½d. 100	—
Opium Pulv. ...	2s. 11d. oz.	560	" (50%) ...	6½d. oz.	104	" Sodii Bicar. Co. ("Soda Mifut") ...	8d. 1,000	—
Oxymel. Seille ...	8d. lb.	9½	" Hypophosph. ...	4d. oz.	64	" Sulphonal B.P.C. (gr. v) ...	2s. 2½d. 100	—
Papav. Capsule Coutus. ...	6d. lb.	6	" Iod. ...	1s. 5d. oz.	272	" Nasal Alkaline— Sod. Bic. (gr. v) ...	8d. 100	—
Paraff. Dur. ...	5½d. lb.	5½	" Nitris ...	2s. 4d. lb.	28	" Acid. Carb. (gr. ½) Boracis (gr. v) ...	—	—
" Mol. ...	11d. lb. (alb.)	11	" Phosph. ...	10d. lb.	10	" Naso-Pharyngeal Co. Sod. Chlor. Borax. Ac. Bor. Sod. Benz. Menthol. Thymol. Ol. Gaulther. ...	1s. 9d. 100	—
" Liq. ...	5d. lb. (flav.)	5	" " Acid. ...	2s. lb.	24	Terebinthum ...	2s. 2d. lb.	20½
Paraldehyde ...	1s. 6d. lb.	14½	" Eff. ...	2s. 3d. lb.	27	Theobrom. et Sod. Salic. ...	3s. 2d. oz.	608
Pasta Zinci Co. B.P.C. ...	1s. oz.	175	" Salicylas (Cryst.) ...	21s. lb.	252	Thymol. ...	2s. 10d. oz.	544
" et Gelatin. ...	1s. 3d. lb.	15	" Sulphas ...	5d. lb.	5	Thyroid. Sic. ...	4s. 3d. oz.	816
" B.P.C. ...	1s. 7d. lb.	19	" Sulphis ...	4½d. lb.	4½	Tr. Aconiti ...	4s. 9d. lb.	47
Pepsin. ...	1s. 9d. oz.	336	" Sulphocarb. ...	2s. 6d. lb.	30	" Asafet. ...	4s. 6d. lb.	45
Phenacetin. ...	1s. 11d. oz.	368	" Sp. Etheris ...	4s. 3d. lb.	37½	" Aurantii ...	5s. lb.	48
Phenazon. ...	3s. 4d. oz.	640	" Ether. Co. ...	8s. 6d. lb.	75½	" Belladon. ...	4s. 6d. lb.	44
Phenolphthalein. ...	2s. oz.	384	" Ether. Nitrosi ...	4s. 4d. lb.	40	" Benzoini Co. ...	4s. 8d. lb.	45½
Physostig. Sulph. ...	8d. grain	—	" Ammou. Aromat. ...	3s. 6d. lb.	34	" Camph. Co. ...	3s. 2d. lb.	32
Pil. Aloes ...	5d. gross	—	" Chlorof. ...	5s. lb.	47½	" Cannab. Ind. ...	10s. lb.	92½
" Aloes et Asafet. ...	8d. gross	—	" Juniperis ...	7s. 4d. lb.	67	" Chlorof. et Morph. Co. ...	7s. 4d. lb.	81½
" Ferri ...	4½d. gross	—	" Rectificatus ...	5s. pint	44	Co. '85 ...	3s. 4d. lb.	45½
" Myrrh. ...	4½d. gross	—	" Vini. Meth. ...	4s. 9d. gallon	15			
" Colocyen. Co. ...	7½d. gross	—	" Strammon. Pol. ...	1s. 1d. lb.	13			
" Digitalis Co. B.P.C. ...	1s. gross	—	" Strontii Bromidum ...	9s. 6d. lb.	114			
" Colocyen. et Hyoscy. ...	1s. gross	—	" Strych. Hydrochlor. ...	3s. 2d. oz.	608			
" Hydrarg. ...	7½d. gross	—	" Succ. Scoparii ...	2s. 4d. lb.	25½			
" Hydrarg. Subchlor. Co. ...	9d. gross	—	" Tarax. ...	2s. 8d. lb.	29			
" c. Creta et Opii B.P.C. ...	1s. gross	—	" Sulphonal ...	1s. 11d. oz.	368			
" Ipecac. c. Seill. ...	8d. gross	—	" Sulphur Præcip. ...	7½d. lb.	7½			
" Phosphori ...	1s. 6d. gross	—	" Sublim. ...	3½d. lb.	3½			
" Podoph. Co. B.P.C. ...	8d. gross	—	Suppos. Acid. Tannic ...	7d. doz.	—			
" Plumbic. Opi. ...	1s. 4d. gross	—	" Belladon. (gr. ½-2) ...	7d. doz.	—			
" Quin. Sulph. (gr. i) ...	10d. gross	—	" Iodoformi (gr. 3-5) ...	8d. doz.	—			
			" Morphine ...	(gr. ½) 7d. doz.	—			
				(gr. ½) 8d. doz.	—			
				(gr. 1) 10d. doz.	—			

* See Part. I., Paragraph 4.

Granules (extemporaneously prepared)	Pence.
Tablets, 12 (extemporaneously prepared)	10.4
" each extra dozen or part of a dozen (extemporaneously prepared)	8.8
Appliances	0.8
All solid or liquid drugs, preparations, or articles (other than prescribed appliances) requiring no compounding or preparation by the chemist	0.8
Part IV. consists of a ready-reckoner table.	1.8

Prescription Problem.

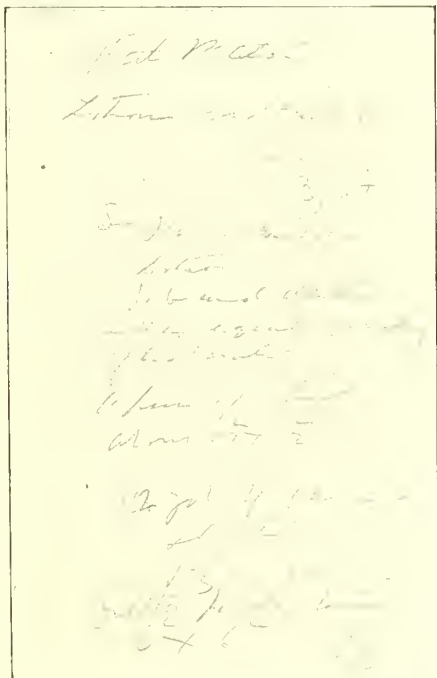
IN our issue of August 14, p. 39, we printed an Insurance prescription of which we invited postcard transcriptions. With the exception of the name of the second ingredient, the prescription was comparatively easy to read, and we received a fair number of postcard replies. The correct transcription is:

Sodii. bic.	5jss.
T. opii	5ij.
Mag. sulph.	5j.
Aq. font.	5viij.

3ss c 3ss aq. t d.s.

Chemists unfamiliar with the doctor's writing would find considerable difficulty in deciphering the name of the second item. We have been assisted in making it out by a Midland pharmacist, who has frequently dispensed the prescription, and who informs us that this doctor's prescriptions are sometimes written very distinctly. Among the different renderings of the name of the second ingredient were: Tr. aur., tr. zin., p. rhei, t. rhei, and p. diu. A few competitors translated the third item as magnesia or "magnes. e." The remainder of the prescription was rendered correctly by all the competitors. We received no correct transcriptions, and there will therefore be no award of prizes.

The following prescription forms the subject of the next competition. Postcards only are permissible, and these should be posted not later than September 25. Prizes will be awarded at the discretion of the Editor, and in case of close competition time of posting will be taken into account.



PATENT MEDICINES IN GUATEMALA.—In our issue of August 21 (p. 52) we gave some particulars of the restrictions on patent medicines in Guatemala, which come into force from September 25. We now learn that the decree provides for the confiscation of drugs and medicines imported by others than those conducting legally recognised pharmacies or similar establishments.

Insect-killing Ideas.

THERE is no diminution in insect-killing interest, as may be judged by the following paragraphs, which incorporate novel ideas:

BED-BUGS, LICE, AND TICKS.

Mr. Gilbert E. Brooke, Port Health Officer, Singapore, writing to "The Lancet" (1915, II., 571) about killing bed-bugs in the cabins of ships, says that after trying many things, including cyllin, phenyl, benzene, petrol, coal-tar product mixtures, kerosene, and turpentine, he tried "Sanitas-Sypol," and while working on this found that it made, in certain proportions, an excellent and clear solution with turpentine or with common kerosene, and that this clear mixture formed an immediate, stable, and non-inflammable emulsion on the addition of water. With a few modifications he found such a mixture to be ideal after numerous trials. It is made up as follows:

Stock solution.—Carbon disulphide 1, kerosene 20, mixed first by shaking; then add Sanitas-Sypol 7, and keep in a stoppered bottle.

For use.—Make a 10-per-cent. solution in water, adding the water to the stock, and not the stock to the water.

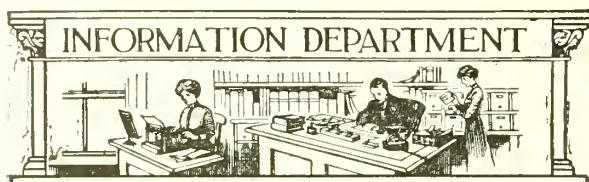
This 10-per-cent. solution is a milk-white emulsion. It is practically permanent when corked up, but should be freshly prepared just before use. Sumner's pressure sprayer was used to distribute the liquid to the infested parts. Bugs appear to be killed within a second or two. Two applications proved sufficient to kill all the lice (over 2,000), and their eggs, on a small pariah puppy. The Government veterinary surgeon (Mr. P. Scott Falshaw) reports that it is the only agent he has used which is capable of dealing instantaneously with cattle-ticks.

FLY LARVÆ.

In the same issue of "The Lancet" a U.S.A. Agricultural Department Bulletin (No. 245) on the destruction of the larvæ of the house-fly in horse-manure is epitomised. This follows upon the borax treatment already referred to in the *C. & D.* The Department's experimenters have now come to the conclusion that powdered hellebore is the most efficient and practical of all the materials tested. Using $\frac{1}{2}$ lb. to 10 gals. [each 128 oz.] of water, and applying this to eight bushels of manure, is effective, and exerts no injurious action on the fertilising-value of the manure. In the light of these recent experiments it seems advisable to recommend borax as a larvicide for the treatment of out-houses, refuse-heaps, and all other places where flies may deposit eggs, and powdered hellebore for the treatment of manure. We presume white hellebore is meant.

WASPS.

Mr. H. H. Mitchell (Knockholt, Kent), writing to "Nature" and the "Journal of the Royal Society of Arts," states that wasps and many other insects touched with a brush dipped in benzol or petrol instantly collapse and die. He destroyed three wasps' nests by the injection of about 2-oz. of benzol into the nest by means of a small syringe. The first injection is sprayed over the mouth of the nest. This entirely prevents the escape of any of the insects, and kills the sentry wasps at once. The balance is sprayed right into the hole. One partly destroyed nest was laid open, and several hundred wasps were found, covering an area as large as a cheese-plate. The first discharge of the syringe over these killed the lot, and not one escaped. Mr. Mitchell thinks that the liquids act by asphyxiation or as a fatal anæsthetic. In this connection we have received from Mr. G. Allen, chemist, Urmoston, a photograph of the contents of a wasps' nest which he recently destroyed by the cyanide method lately described in the *C. & D.* He says the nest was in the ground in the border of the garden footpath of one of his customers. The solution 1 oz. to the pint, with Scheele's acid 5ij. was placed on wool over the entrance, and well clamped down with wet suds. It was left for three days, then opened, when the wasps were mostly dead. The photograph shows a mass of them besides eight cakes or combs 30 in. in circumference and 11 in. in diameter. All the larvæ were still alive. Many wasps were dead, but some were still capable of using the business end, though none were capable of flight. We may say that the cyanide solution should have sulphuric acid added to it to liberate the hydrocyanic acid, but after Mr. Mitchell's observations preference should be given to benzolin, benzol, or petrol. We have always understood that these solvents remove the waxy coating from the bodies of insects, and this begins the fatality.



Postal Address:

C. & D. INFORMATION DEPARTMENT, 42 Cannon Street, London, E.C.
 Telegraphic Address: "CHEMICUS, CANNON, LONDON" (two words).
 Telephone Number: 3647 CENTRAL (three lines).

INFORMATION WANTED.

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated. Please address us as above:

- | | |
|---|---|
| 221/33. Foruna ointment. | 223/4. Ratti's Menphrosine. |
| 221/34. "Leslie" razor and razor-strop. | 225/21. "Roman Meal" digestive food made from flax. |
| 223/60. Makers or first-hand suppliers of 2-in. glass cubes, no mount, with one surface worked to form a magnifier. | 225/6. "Besoline" or "Bezo-line," a disinfectant. |
| 224/9. "Sans Germ" telephone shields. | 277/27. "Renard" brand pomade hongroise. |
| 224/11. Parogen. | 227/27. First-hand suppliers of perfume-sprays, with india-rubber bulb, suitable for hair-dressers. |
| 224/10. Toris tablets. | |

See also "War Wants Exchange" in the Coloured Supplement.

INFORMATION SUPPLIED.

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.:

- | | |
|---|---|
| "Acousticon" ear-drums, 216/2 | Galalith, 220/24 |
| "Albate" ointment, 208/46 | "Gem" stills, 225/30 |
| Aluminium boxes, 209/53 | "Glinta" for the hair, 222/25 |
| "Antiphlogistine," 203/41 | Grinding machines, 219/5 |
| "Ariston" vaporiser, 203/9 | Hoggy's asbestos socks, 223/17 |
| Atropine and its salts, 219/68 | "Holadin," 215/66 |
| Barker's vibrator, 221/29 | Hop pillows, 207/19 |
| Barium peroxide (for Canada), 204/26 | Hudson's Eumenthol jujubes, 219/9 |
| Baldoot, J. C., & Co.'s agents, 195/51 | Iron acetate, 220/44 |
| Bottle-capping composition, 224/31 | "It" canteen, 216/17 |
| Brooks' truss, 219/54 | Jackel's hair-cream, 213/25 |
| Calendars for chemists, 219/64 | Johnson's baby powder, 217/71 |
| Celluloid toothbrushes, 225/10 | Johnson's "Red, White, and Blue" Eau de Cologne, 215/10 |
| Chamomiles (Belgian): importers, 187/49 | Joss sticks, 219/33 |
| Chemical plant, 196/63 | Kephaldol, 226/26 |
| Chiozza & Turchi, of Italy (London agents), 195/34 | "Klepal" cream-of-tartar substitute, 215/67 |
| Chlorophyll, 206/50 | "Koko" for the hair, 207/221 |
| Cirengol, 226/26 | Krusehen salts, 207/220 |
| Clement's tonic, 205/53 | Lactogen, 222/24 |
| Clinical thermometers (English and American makers), 222/62 | Lefroy's vermin-killer, 193/7 and 193/6 |
| Cocoa, milk, and sugar in powder combination, 219/46 | "Lemoline," 186/11 |
| Gold box glue, 212/4 | "Listerine" tablets, 200/16 |
| Colgate & Co.: address, 219/68 | Luminous paint, 221/67 |
| Compressed tea tablets (in bulk), 217/8 | Lyeryl, 225/203 |
| "Cryogenine," 204/33 | Mackenzie's mulling-salts, 204/5 |
| "Cystazol," 211/43, 219/62 | Marienbad salts, 220/5 |
| Daggett & Ramsdell's cold-cream soap, 204/71 | "Mason Pearson" hair-brush, 192/4 |
| Decker's toilet articles, 211/4 | "Maxem" belts for soldiers, 217/61 |
| Dee Oil Co., Ltd.: address, 217/23 | Medicine-chests, 204/21 |
| "Dentinal," 205/61 | Monsel's salts, 213/41 |
| "Digestin" tablets, 227/60 | Moore's toxin for dog distemper (agents), 203/47 |
| Doig's septieide, 208/57 | Morse's Indian root pills, 221/30 |
| Dusart's syrup, 204/71 | "Mothersill" seasick remedy, 207/22 |
| Electric belts, 201/65 | Mothine, 222/61 |
| Energen bread, 215/55 | "Nerviline," 173/390 |
| "Ever-Ready" specialties, 223/35 | "Neo Kola," 213/42 |
| Ext. muirapuama, 213/54 | Omnopeon, 226/26 |
| Eye-droppers (for Egypt), 208/56 | Opal pots with celluloid caps, 229/44 |
| Faec-powder paper, 205/5 | Oxyntin, 225/19 |
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See also "War Wants Exchange" in the Coloured Supplement.

APPRECIATION.

From a West-end Firm of Chemists.

"May we offer our sincere thanks for the invaluable service your Inquiry Department renders? To-day we spent over half an hour in phoning the leading sundries-men and firms they suggested in quest of a rather out-of-the-way article, but with no success. Finally we bethought ourselves of 'C. & D.,' and within a couple of minutes we had a firm's name, and within an hour had the article on rail for our client." (208/12.)

B.P. Notes.

By "Abel Scholar."

A Shorter Name.

Is not the name Benzolated Amylic Alcohol a long and unhappy one for the mixture of amylic alcohol and benzol used in the official cinchona assays? Would not Amylic Benzol be better and simpler to say and write?

Lin. Aconiti.

The assay of this preparation by the process officially recommended and described under aconite-root is not free from fault. In no part of the process are fatty matters wholly removed; consequently these appear at the last part of the operation firmly adhering to the vessel in which the trituration is conducted. This in one instance amounted to 0.005 gram, and dissolved in S.V.R. to form a yellow liquid. Therefore the weight of the residue (which, however, is not officially required to be weighed) would not be a criterion of the amount of alkaloid present in the liniment. It would be much better to remove the fat, etc., by means of a suitable immiscible solvent before proceeding to conduct the assay.

Solubility of the Colouring-matter of Red Sanderswood.

The colouring-matter of the heartwood of *Pterocarpus santalinus*, according to the B.P. 1914, is "almost insoluble in water," and no attempt is made to indicate the quantity extracted by that solvent. The temperature of the water to be used is not indicated, but presumably water "at ordinary temperatures" is meant. The preface of the B.P. 1914 does not define ordinary temperatures, but in the preface of the B.P. 1898 (p. xiv) it is stated that "ordinary temperatures are those between 50° and 70° F." Perhaps, therefore, 60° F. would be a safe temperature to employ. After some experience it is found that the amount of aqueous extract is very variable, due no doubt to a variety of causes, chief of which would be age of the wood, comminution, conditions under which the wood has been kept—i.e., whether exposed to air or not, in dry or damp places, or in warm or cool places, etc. The solvent water should be free from ammonia, as alkalies notably increase the solubility of the colouring-matter. It should also be free from carbon dioxide. On placing 2 grams in 100 c.c. of water in a stoppered flask, keeping in contact for twelve hours, shaking the flask occasionally, then measuring off, an aliquot part (say, 50 c.c.) and evaporating on the water-bath, an average yield of 1.25 per cent. is obtained. If the whole be filtered through a dry filter-paper free from alkalinity, 93 to 95 c.c. of filtrate, or even more, is obtained; and if the residue be washed until another 100 c.c. has been collected, a further small quantity of colouring-matter is obtained, bringing the total, generally, to 1.5 per cent. In certain samples of red sanderwood the mineral matter so extracted does not exceed 0.25 per cent.

Observations and Reflections.

By Xrayser II.

Professor Schuster's Address

to the British Association presents us with a view of science so high and ennobling as to win at once our admiration and acceptance; we feel that if it is not true there is no assurance left of anything under heaven. It has been too much the custom to contrast science and poetry, truth and beauty, as if the one were the opposite of the other, and almost as if they were mutually exclusive.

"When Science from creation's face
Enchantment's veil withdraws,
What lovely visions yield their place
To cold material laws!"

says Campbell, and the saying has been accepted as true by most people who know nothing of science and little of beauty. To such persons Keats's declaration, "Beauty is truth, truth beauty," is pure paradox; but here comes the chosen representative of the science of the day telling us the same thing, saying that the moving-spring of the scientist's action is identical with that of the artist, and that his primary object is "to reveal the hidden harmonies of Nature." He accepts Karl Pearson's assertion that one of the chief delights of pure science is the gratification of the æsthetic judgment; it is the "intellectual pleasure" of the pursuit and the indulgence of the "emotional instincts" that carry him along and make his work fruitful both for himself and others. This is in close accordance with what Wordsworth says:

"The knowledge, both of the poet and the man of science, is pleasure. . . . Poetry is the breath and finer spirit of all knowledge; it is the impassioned expression which is in the countenance of all science."

A great German mystic tells us that "all science becomes poetry after it has been philosophy"; for Professor Schuster it is half poetry already, and this rather than its narrowly useful results is what constitutes its value for humanity.

The Registered Chemists' Association

of Liverpool, like Hans Breitmann's Party, is "away in der Ewigkeit," but one, at least, of its works—the Price-list—remains, an honourable legacy to the pharmacists not of Liverpool alone, but of the whole country. I fancy it was the abortive attempt at early closing that gave the Association its death-blow; it was in this, as in some other respects, far in advance of its time; we are yet almost as distant as ever from the realisation of its ideal. But in any case the two Associations could not long co-exist; such success as the younger achieved inevitably awoke the other to the necessity of moving with the times, and it moved to good purpose. From what I remember of its meetings some twelve years earlier, I should say it had a great deal of backwater to make up, and some of its older members probably look back with mixed feelings to the peaceful hours they once enjoyed in the company of Raphael's "Transfiguration." There is a lesson for us in these reminiscences: it is possible to awaken the most apathetic Societies, and it is possible for any Society to combine activity in relation to trade interests with a due regard for scientific pursuits.

The Rise in the Price of Quinine

is, I suppose, due to a variety of causes, prominent among which must be the difficulties of transport of cinchona-bark. If a "ring" has been formed, as has been stated, it can only be because the makers foresee a great increase in the demand

at a time when the normal sources of supply cannot possibly cope with the needs of the situation. That there will be this increased demand may be taken for granted; indeed, it has already been pointed out in your Trade Report that several of the Continental Governments have been heavy purchasers. This is no doubt largely due to the fact that synthetic antipyretics are no longer available in sufficient quantity for military needs, and the medical advisers have had to fall back on quinine. It is impossible to predict what price the alkaloid will touch, but I think it is safe to say that it will stop far short of the price it reached during one of the Russo-Turkish wars—namely, 17s. 6d. per oz. I fancy that was the high-water mark of quinine, and it did not stop long there. It was not very long before it fell to half that price, and gradually tumbled down to about 6s. Many pharmacists at that time "invested" in quinine, but at very serious losses, as the price gradually fell till it touched less than 1s.

Between Hatred and Adrenalin

there is to the uninitiated no obvious connection, but we are told by Dr. A. E. Shipley, F.R.S., in the current number of the "Cornhill," that they are very closely connected. According to one school, the cause, according to another, the effect, of hatred, as manifested in rage, is the secretion of adrenalin by the suprarenal capsules. The secretion is automatic, "its reaction is deeply entangled in the working of the nervous system." All such reflexes are purposeful, and this, which accompanies fear, pain, and rage, is no exception. The purpose it serves is to stimulate the muscular effort occasioned by these passions, and to restore fatigued muscles when the effort is over; or, more shortly, to "put the muscles of the body at the disposal of the nervous system." This (Dr. Shipley continues) is practically what is done by the injection of adrenalin into the human body; it has, of course, other effects, but this, from his point of view, is the most important. If, then, as is commonly held, the passion of hate tends to success in war, adrenalin might claim to rank with the "munitions" we are so actively engaged in making. The Germans, apparently, have no occasion for any such artificial stimulant, but its restorative action might be useful even to them. It is a curious fact, evidenced by Professor Tait Mackenzie's mask of a face in violent effort and fatigue (reproduced in the "Cornhill"), that the general expression produced by excessive exertion is similar to that produced by rage; hate and rage predominate in it, accompanied by an appearance of distress about the strained mouth and neck.

"Status"

is a word for which I have a rooted dislike, possibly exaggerated, but not altogether unreasonable. It is due partly to what I consider the abuse of the word, partly to its wearisome iteration, partly to its history. Status is a fact of great importance, and we must have a name for it; but it is, or should be, a civil rather than a social fact, a legal, not a natural condition, and I should like to see the word used only with this restriction. Even so used it has ugly associations. When Mr. Belloc tells us that we are re-establishing status in the place of free contract he may or may not be stating a fact, but it is a fact that "status" used in this historical sense suggests a servile state. Status in the latter days of a Roman Empire and in the earlier Middle Ages meant a condition out of which a man could not rise, and which descended from father to son—it meant, in short, serfdom for the majority of the people; and it is at least unfortunate that a word with such a connotation still clinging to it should be transferred to the social sphere. Our social relations ought not to be determined by our business, though they too often are. We may reasonably contend for a definite legal status that carries with it rights correspondent with its duties, but the only social standing that is worth having is that which a man enjoys for his own sake, as the result of his personal qualities.



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LIQUORS

Editorial Articles.

Prospect of New Taxation.

BUDGET insurance on Lloyd's is not a sure guide as to what the Chancellor of the Exchequer is to do; indeed, it is quite as often a stimulus to the removal of dutiable goods from bond with concurrent payment of duties that help the Chancellor to modify his proposals. Nevertheless, it is interesting to note that 50 per cent. was quoted at the beginning of last week to cover the risk of a higher duty on tea, and the rates for increased duties on sugar and petrol were just as high, but it appears that not many insurances have been effected at this rate. There were simultaneously extraordinary quantities of spirits, tea, and wines taken out of bond, but the Commissioners of Customs and Excise stopped this by limiting the withdrawals of each bond to his average for the previous three months. Import-duties on so-called luxuries are being freely recommended, so it is not surprising to hear that ten guineas per cent. has been paid against the risk of a duty on silk and ribbons—supposed to be typical luxuries—of which 9,927,162l. worth has been imported this year, which is substantially the same as in the same period of two preceding years, when the values were slightly over 10,000,000l. There are many rumours as to the extension of the principle of raising taxation by import-duties, and it must be said that opponents of that principle are exceptionally silent about the matter, hence the present is considered to be a favourable time for a new departure. There are many other considerations, however—e.g., the taxation of luxuries like silk would hit the very people who are doing more than their share through income-tax and otherwise, and the Customs is not at present staffed sufficiently to cope with such an extension of the work as fresh import duties would necessitate—even a silk-duty would add enormously to the work of Customs chemists, who would have to be the judges in many cases as to whether or not a fabric contains silk when it is declared not to. This is one example only of many which could be given of new fiscal work that would arise at a time when men are scarce. Most money and least trouble is the maxim that the Chancellor is practically bound to adopt, hence augmentation of some existing duties would get money from those who contribute little by direct taxation, and would not involve the creation of new machinery. The Chancellor is to make his statement in the House of Commons next week; we must all have patience until then.

The Drug Tariff.

[The Report of the Departmental Committee on the Drug Tariff was published on Thursday morning, and an earlier section in this issue (pp. 41-51) is devoted to it. The Report was anticipated by the British Medical Association publishing last week a circular to Local Medical and Panel Committees about the proposals in the Report. This article is based upon statements in that circular, and was written and set up before the Report was published.]

THE Insurance Act Committee of the British Medical Association has issued to Local Medical and Panel Committees a Memorandum on possible changes of the Medical Benefit regulations connected with the placing of the Drug Tariff on "a commercial basis," whatever that may mean. The Memorandum has been printed in the supplement to the "British Medical Journal" ostensibly because the members of the Insurance Act Committee want the co-operation of Local Medical and Panel Committees in formulating a definite answer to proposals which are formulated by the Departmental Drug Tariff Committee, and which, if accepted, mean that a radical change will ensue in the apportionment of the 9s. per insured person which is appropriated for Medical Benefit. At present panel doctors get the first slice of this, 7s., have a lien upon a fourth of the remainder (the floating 6d.) if it is not wanted to pay the accounts of panel chemists, and the latter cannot get more than 2s. per insured person, even if the medicines for such persons should amount to more. It is now proposed that chemists' accounts should be the first charge on the 9s., and it is not unreasonable to conjecture that panel doctors will need some convincing before they allow chemists to step in front of them. The Memorandum is remarkably successful in demonstrating to doctors that they (the doctors) will benefit by the change, for the reasons given by the English Commissioners in a statement quoted later. It may be recalled that a deputation from the Insurance Acts Committee of the B.M.A. was received by the National Health Insurance Joint Committee on July 9 in regard to so-called anomalies of the present Drug Tariff, especially in regard to the Association's demand that the Tariff should be placed on a commercial basis. The Association objected to the pharmacist getting a trade profit on each of the articles he handles as a tradesman besides remuneration for his professional services. Panel chemists should keep this in mind: it is the kernel of the medical complaint, the pivot of all their objections, and therefore the point upon which future discussion, if any, on principle must turn. We are now assured by the Memorandum that the chief result of the Departmental Committee's labours will be the introduction of a Tariff in which "the prices laid down are such as to afford the lowest rate of remuneration that pharmacists could reasonably be expected to accept in the course of business." We are also informed that the acceptance of the new Tariff by pharmacists, the Insurance Commissioners, and doctors is dependent on the proviso that the pharmacists' bills will be paid in full, and this can only be done by "an encroachment on the fund at present set apart for the remuneration of medical practitioners—that is, 6s. 6d. plus 6d. for Sanatorium Benefit," which means, as we have already said, that chemists' accounts are to be the first charge on the 9s. per insured person available for Medical Benefit. How this is to be done is shown by the following statement given by the English Insurance Commissioners to the B.M.A. Committee:

(i.) Total Drug Fund for England in 1913	... £920,000
Total payments to chemists in 1913	... 808,342

Difference	... £111,658
------------	--------------

The difference represents the proportions of the floating 6d. paid to doctors in the areas where the drug bills were lower than 2s. per head, and the unexpended balances in those areas where the drug bills were lower than 1s. 6d.

(ii.) In England there are 126 areas. In thirty-five of these areas the chemists' bills were discounted to the amount of 54,663% in 1913.

The figures for 1914 are incomplete, but are probably less favourable; those for 1915 so far indicate a saving as compared with 1914.

(iii.) The saving in the cost of drugs by a Commercial Tariff may safely be assumed to be not less than 12-15 per cent. If 15 per cent. be the figure, it is estimated to be equivalent to 2½d. per insured person per annum, or a total sum of about 125,000l.

In view of considerations yet to come, we emphasise the fact that this statement is by the English Commissioners. [Here we may also point out that the 125,000l. mentioned was based upon the 1913 figures. We have been informed since this article was written that the amount of discounting which chemists' accounts were subjected to in 1914 and now is approximately the same. This statement should not be overlooked in consideration of the whole question, for if correct it has a most important bearing upon the pharmaceutical view of the proposed changes.] The B.M.A. Committee proceeds to show those whom it addresses that the Commissioners' statement makes things all right for the doctors; thus (1) unexpended balances will, instead of being reserved to meet increased cost of drugs in the areas where they accumulate, be pooled for the benefit of areas where the Drug Fund is insufficient to meet the demands upon it; (2) Pharmaceutical Committees as complainants in cases of alleged over-prescribing will be eliminated, for if pharmacists are assured of their bills being paid in full they will no longer have any interest in the question of economy in the use of drugs. The Committee therefore asks:

Is the risk to the profession, involved in the abolition of discounting, balanced, or more than balanced, by the advantage resulting from the Tariff being fixed on a commercial basis?—that is to say, by a reduction in the drug bills of something like 15 per cent., or approximately 125,000l.

There is a good deal in the Memorandum about how the Drug Fund should be allocated or spread out, and we quote the more important statements:

The Theoretically Exact Method of distributing the total Drug Fund according to sickness incidence would be to give each area more or less than 2s. per insured person, according to the circumstances of the area. The Commissioners have stated that they have statistical data upon which such a differentiation might possibly be based. These data are mortality returns, reports of medical officers of health, etc.; but it is not suggested that the distribution should in any way depend on past experience as regards expenditure on drugs.

Another Method would be that the whole, or, if considered equitable, a part, of the amount which some areas may be able to save below 1s. 6d. should be placed to a central fund, which would be available for the relief of areas which, with due economy, may be unable to work under 2s.

A Third Method would be that a certain sum—say, 2l. per insured person—should be deducted from the credit of each area and placed to the credit of a central fund, which would be available for grants in aid of areas in which expenses are in excess of 2s.

The Memorandum proceeds to consider how the Drug Fund should be distributed among practitioners in each area, and, assuming that it is sufficient to meet the total drug bills of the area, the following three methods of arrangement are suggested:

(a) Each practitioner shall be made responsible for the total cost of whose (*sic*) prescriptions above a minimum

limit, say of 1s. 3d. per insured person, with a local indemnity fund of, say, 3d. per insured person, out of which relief might be given to individual practitioners the cost of whose prescriptions is over 2s. per insured person on appeal to, and at the discretion of, the Panel Committee.

(b) An automatic surcharge of every practitioner the total cost of whose prescriptions exceeds the maximum of 2s. per insured person, with power to the Panel Committee on appeal to grant a certificate of indemnity which shall entitle such practitioner to relief out of the Drug Fund of the area.

(c) Continuous scrutiny and surcharging on the present plan, except that the Pharmaceutical Committee would not be concerned therein.

These suggestions are not of direct pharmaceutical interest, but are quoted because they happen to reflect conditions which panel doctors have steadily refused to consider with the view to a remedy, while panel chemists have been the sufferers; but now that panel doctors through the Local and Panel Committees are called upon to decide on a change which will cost the chemists 125,000*l.* and themselves nothing, the conditions cannot be ignored. The B.M.A. Committee wants a decision upon the matter by September 30, and the questions put are as to acceptance of a Commercial Tariff and the broad changes for panel doctors involved. A letter from Sir Robert Morant safeguards the interests of the Commissioners and throws some light upon what may happen if panel doctors accept. In this letter Sir Robert says:

The Commissioners would, in the present exceptional circumstances, with so many members of the profession inaccessible, be most reluctant to make any substantial modifications of the terms of service of medical practitioners under the Insurance Act unless they could feel assured that such modification were desirable in the view of all concerned (Paragraph 5, Memorandum 201).

The present Memorandum must not therefore be taken as an exposition of a new scheme which the Commissioners are intending to embody in draft Regulations for the ensuing year; its object was (*sic*) merely to set out certain tentative ideas arising out of the deliberations of the Tariff Committee, and embodying the results of discussions between representatives of the Commissioners and of your Committee, with a view to their being more closely examined by your Committee from the point of view of their effect on the medical profession if carried out. If your Committee welcome the proposals as being of advantage to the profession, and are prepared to recommend them to the Panel Committee, the Commissioners would be prepared to put them forward, in accordance with the usual procedure, with a view to their incorporation in new Regulations for 1916. If, on the other hand, your Committee were to come to the conclusion—however mistaken such conclusion might be in the Commissioners' view—that the advantage of the new proposals to panel practitioners are more than outweighed, under present circumstances at any rate, by disadvantages, *the Commissioners would have to consider whether the idea of making any change on these lines must not be abandoned for the time being*; and pending such consideration your Committee would, of course, refrain from circulating any document to Panel Committees as representing the Commissioners' views as to the policy now to be adopted on the drug question.

To save space in exposition we have italicised a passage in this letter which panel chemists should not forget, as the eventuality would leave them where they are.

As already explained, the foregoing was written before the Departmental Committee's Report was published (while this issue was going to press). It will be seen that the so-called Commercial Tariff consists of (1) a wholesale-price list of drugs and preparations, and (2) a dispensing-fee on every prescription for the same, which fee includes an establishment allowance of 0.8*d.* per prescription. The fee varies in amount, and not a drug supplied is to be without a fee; but in the case of appliances the cost price *plus* 0.8*d.* is what will be paid. It is proposed that the Tariff should be national, revised once a year, and that war prices should last as long as

war conditions. Chemists are to be relieved of prescription pricing, and discounting is to be abolished by making chemists' accounts the first charge on the Medical Benefit Fund, as explained in the foregoing.

We commend the Report to the careful consideration of all panel chemists. Points in it are dissented from by the pharmacists on the Committee, and dissent does not necessarily end with publication of the Report; in fact, the whole matter is to be considered by pharmaceutical delegates four weeks hence, so that there is ample time for consideration, and no need for hasty approval or disapproval. The proposals include novel principles and far-reaching suggestions affecting the business interests of the majority of retail chemists in Great Britain, and in relation to a National Service for the sick. Therefore it must be approached in an appropriate spirit—viz., that British pharmacy should continue that service, although it may not necessarily be possible that each individual pharmacist will be able and willing to undertake the service.

The Linseed-oil Outlook.

THE present market conditions of linseed oil are full of perplexities, which have been created by the war, and, as industrial conditions in most countries have undergone a marked change, a new standard must be established as representing the world's consumption of the oil. At the moment the outlook appears more unsettled than ever, and it may not be out of place to indicate the leading features in the situation. As a consequence of the serious depression which prevailed during the greater part of the second half of 1914, it will be remembered, there were some violent fluctuations, as European consumption was severely curtailed and Continental and home speculative operations collapsed. There were then large stocks of oil in existence, and, commitments being liquidated on a large scale, prices steadily declined. The year 1915 opened with prices well above the worst—viz., about 23*l.* 10*s.* per ton in London—and at this date the accumulated stocks had been considerably reduced, partly owing to heavy exports to Holland; the home trade demand also showed considerable elasticity at existing attractive prices. In the spring there was a rapid recovery in prices, owing to the persistent Dutch demand and the fears of a material curtailment of cultivation in the chief growing countries consequent upon the very high prices ruling for foodstuffs like wheat. The spot price in London was thus quickly raised to about 38*l.* Holland not only imported much larger quantities of seed, but a huge tonnage of oil from Great Britain, against practically *nil* in previous seasons. During the first five months of this year no less than 29,500 tons of linseed oil was received in Holland from this country, while her exports to Germany for the same period were about double that amount, or nearly 60,000 tons, against a mere 4,700 tons in the previous year. These statistics were naturally sufficient to arouse suspicion that the British product was being diverted to Germany on a considerable scale; hence the prohibition of our exports to Holland ensued, which was soon followed by a similar action on the part of Holland, who prohibited all exports. This development has obviously had a depressing effect upon the British market alongside of the much-reduced Continental takings of seed, while comparatively larger quantities of the latter were thus diverted to Great Britain. With the elimination of this Dutch trading, the full effect of the curtailed European consumption through the war has made itself

felt, and the renewed depression is therefore easily accounted for.

Prices now stand at a level not much above those current at the opening of the year, while differing but little from those recorded a year ago. But for the fact that some 220,000 tons of seed was this year despatched direct from the River Plate to the United States, thus offsetting to some extent the huge deficit in the European takings, the digestion of the available supplies of seed would probably have aggravated the recent depression. As it is, however, there does not seem to be much room at present for any material and permanent improvement in general market conditions, which partly depend on crop-indications. The position of crushers is certainly not very encouraging, in spite of the abnormally high prices ruling for linseed-cake, which tend to restrict the outlet for this by-product. As regards the United States crop, the acreage has turned out almost as large as a year ago, but the yield may not be much in excess of last year; the area under cultivation in Canada is very considerably less than last year, thus pointing to a materially reduced yield. Even assuming that the American crop leaves a fair surplus for export, there is reason for believing that the United States will have once again to make fresh importations of foreign seed in the course of next year, though on a much smaller scale than has been the case this year. The shipments from the River Plate so far during 1915 amount to about 750,000 tons, and, including the moderate surplus still in existence there, the total shipments for the whole of this year will probably reach approximately 900,000 tons, or about the tonnage shipped in 1914. The latest advices from that quarter are to the effect that the area under cultivation is much smaller than last season, and that weather conditions have been rather unfavourable. Should the next Argentine crop-yield show a serious deficit, this would, of course, have an important bearing on future developments. Though it is most difficult to form an opinion of the much-reduced consumption of linseed oil, as industrial conditions have been badly upset by the war, it may be reasonably concluded that prices are now on a comparatively safe basis, while the market may be rendered very sensitive by adverse crop-news.

Wills.

MR. GEORGE GLADSTONE MUSTON, chemist and druggist, 57 Western Road, Brighton, who died on July 14, left estate valued at 4,316*l.* 1*s.*

MR. JOHN SMITHSON, chemist and druggist, 24 Goldsmid Road, Brighton, who died on June 23, left estate of the gross value of 5,749*l.* 11*s.* 5*d.*

ALDERMAN WILLIAM GREGORY, chemist and druggist, Weymouth, who died on June 6, aged seventy-eight, left estate valued at 1,812*l.* 1*s.* 6*d.* gross.

MR. CHARLES BENJAMIN CASWELL, analytical chemist, Rock House, Woodland Road, Northfield, Birmingham, who died on May 18, intestate and a widower, aged sixty-five, left estate valued at 2,369*l.* 2*s.* 1*d.* gross, with net personalty 2,236*l.* 10*s.* 2*d.*

MR. ROBERT HEATH LOCK, Sc.D., Tregenna, Streetly, Staffs, who died on June 26, left estate valued at 2,564*l.* 10*s.* 4*d.* gross, with net personalty 2,441*l.* 6*s.* Letters of administration have been granted to his widow, Mrs. Bella Lock, 3 Lexham Gardens, Kensington.

MR. WILLIAM CLAYTON, chemist and druggist, Norfolk Road, Sheffield, who died on August 6, left estate of the gross value of 7,532*l.* 1*s.* 1*d.*, of which 7,493*l.* 15*s.* 6*d.* is net personalty. The testator left an annuity of 150*l.* to his daughter, Mary Emma Clayton, 20*l.* each to the executors of his will, and the residue of his estate as to one half upon trust for his daughter and her issue, whom failing to follow the trusts of the other moiety, and one half upon trust for his son, William Arthur Clayton, and his issue.

Births.

Authenticated notices are inserted without charge.

BATES.—At Holmview, Campsie, Omagh, on September 8, the wife of Walter V. Bates, Ph.C., of a daughter.

TURNBULL.—At 19 Honister Avenue, High West Jesmond, Newcastle-on-Tyne, on September 11, the wife of Alexander Turnbull, chemist and druggist, of a son.

Marriages.

Authenticated notices are inserted without charge.

BLEE—POOLE.—At St. Patrick's Church, Waterford, by the Rev. R. P. Bond (Dublin), assisted by the Rev. Canon Greenstreet, M.A., on September 7, Harry Cuming Blee, A.I.M.M., son of the late R. S. Blee, V.S., Waterford, to Constance Hornick, only daughter of the late Robert T. Poole (R. Poole & Co., Ltd., chemists and druggists) and Mrs. Poole, Bellevue Terrace, Waterford.

HEUGHAN—IDLE.—At Fitzwilliam Street Church, Huddersfield, by the Rev. R. Dickson, on September 7, George Heughan, pharmacist, Northgate, Dewsbury, second son of Mr. and Mrs. James Heughan, Dunard, Dalbeattie, to Annie, only daughter of Mr. and Mrs. Walter Idle, Fairfield House, Huddersfield.

ROYLE—BROOMAN.—At St. Gabriel's, Willesden Green, on September 13, by the Rev. J. Noel Gill, M.A., Philip Oliphant Royle, Corporal A.S.C. (M.T.), second son of the late H. W. Royle (Ingram & Royle, Ltd.) and of Mrs. Royle, of Pevensy, Lydford Road, Cricklewood, to Ethel Mary, eldest daughter of Mr. and Mrs. H. W. Brooman, of Leland, Chichele Road, Cricklewood.

STOREY—ROBB.—At Castlereagh Presbyterian Church, Belfast, by the Rev. J. W. Gibson, M.A., on September 9, Thomas Frederick Storey, managing director of the firm of Fred Storey, Ltd., manufacturing chemists, Belfast, to Kathleen Mary, third daughter of Mr. John Robb, Castle Place, Belfast, and Charleville, Castlereagh.

WILLIAMSON—MINTER.—At Holy Trinity Church, Darlington, on September 1, Leonard Wright Williamson, Ph.C., High Lea, Darlington, to Bertha, second daughter of the late Mr. W. Minter, of Lorne Terrace, Darlington.

Deaths.

Authenticated notices are inserted without charge.

ASHBY.—At 177 Mansfield Road, Nottingham, Mr. William Ashby, chemist and druggist, aged sixty-nine.

BAKER.—At 18 Pine Street, Newtown, N.S.W., on July 6, Mr. William Baker, chemist and druggist, aged eighty. Mr. Baker was a chemist and druggist of Great Britain and went to New South Wales in 1890. He was in business at Darlington, a suburb of Sydney, for many years, retiring about ten years ago.

DOBSON.—At Stanley Villas, Runcorn, on September 9, Mr. James Dobson, chemist and druggist, aged ninety-three. For over forty years Mr. Dobson was in business at 74 High Street, Runcorn.

GREENWELL.—At 10 Claremont Place, Gateshead-on-Tyne, Mr. William Crozier Greenwell, Ph.C., aged eighty-nine.

PICKBURN.—At Brisbane, Queensland, suddenly, on June 29, Mr. George Henry Pickburn, chemist and dentist. He was a native of Derby, and lived at Kildgrove and Newcastle-under-Lyme before emigrating to Queensland in 1886, where he filled a position of prison dispenser and chemist to the Government. Mr. Pickburn was registered in Great Britain as in business before August 1, 1868.

Killed in Action.

FORAN.—Private W. Foran, of the 1/8th Manchester Regiment, who before enlistment was with Boots, Ltd., cash chemists, Manchester, as an apprentice.

THOMSON.—Killed in action at the Dardanelles on August 17, Private D. Thomson, 1/4th Royal Scots, formerly with Harkness, Beaumont & Co., wholesale druggists, Edinburgh.

Died on Service.

SNELL.—Intimation has been received that Mr. Robert Charles Snell, who passed the Minor examination in January last, was drowned when the *Royal Edward* was sunk. He was a sergeant in the R.A.M.C.

Trade Notes.

RAILOX, the parasiticide made by Milner's Chemical Co., Liverpool, has caught on and is selling well.

CHEST AND LUNG TABLETS are offered by Wigglesworth & Co., Rosehill, Bolton, in bulk or packed ready for retail.

MECHANICAL DENTISTRY is undertaken for other practitioners by Mr. E. C. Halder, 46 New Cross Road, London, S.E.

BOTANIC DRUGS, especially those of American origin, are selected and packed by S. B. Penick & Co., Marion, N.C., U.S.A., who invite correspondence.

"A FAMILY INSTITUTION" is what "Kepler" Cod-liver Oil and Malt Extract has attained to, and Burroughs Wellcome & Co. make a suggestion to chemists for a profitable window-display of the product.

DUNCAN, FLOCKHART & Co., Edinburgh and London, announce that they are charged with the distribution of the vaccines produced in the Laboratory of the Royal College of Physicians, Edinburgh. Particulars and literature can be obtained from the firm on application.

AQUAPERIA.—Chemists who have obtained their supplies of aquaperia through wholesale houses can obtain showcards and literature regarding this aperient water from any of the factories of Camwal, Ltd. The London office is 112 Pembroke Street, Caledonian Road, London, N.

AYRTON, SAUNDERS & Co., LTD., wholesale druggists, Liverpool, are making a feature of Trench Ointment, a parasitoidal preparation, the use of which not only keeps men in the trenches free from the evil that walketh in darkness and kindred gentry, but discourages the approach of flying insects.

NEWFOUNDLAND COD-LIVER OIL.—Since our last issue we have had the opportunity of examining the Newfoundland medicinal cod-liver oil (non-freezing) put on this market by Job Bros., Tower Building, Water Street, Liverpool. It is a limpid oil, of slightly pale golden colour, bland, and entirely free from the acrid after-taste which one feels in the throat with some samples of Norwegian oil. The medical reputation of cod-liver oil in this country was chiefly based upon the Newfoundland kind, and there are many people who still prefer it, so in these days of high prices pharmacists would do well to address their inquiries as to samples and prices to Messrs. Job Bros., who inform us that they have booked orders for it from the principal chemists.

SIR JOHN CASS INSTITUTE.—The revised syllabus for the new session, which opens on September 27, of the Sir John Cass Technical Institute, Jewry Street, Aldgate, London, E.C., has been issued this week. The instruction in experimental science provides courses in mathematics, physics, and chemistry for London University examinations, in addition to the courses on higher technological instruction which form a special feature of the work of the Institute. In the department of physics and mathematics a special course of lectures and demonstrations will be given on "Colloids" by Mr. Hatschek, which will deal with the methods employed in their investigation and the relation of colloids to technical problems. Facilities are also provided for advanced practical work and research in chemistry, physics, and metallurgy.

"THE TOAST IS BRITAIN."—A well-known pharmacist informed us recently that as a result of displaying this picture published by Wright, Layman & Umney, Ltd., his sales of Wright's Coal-tar Soap had increased enormously, and one well-to-do customer liked the picture so much that he bought sufficient of the soap to entitle him to a free copy of the picture. Even higher esteem is reflected in the following letter which Wright, Layman & Umney received on Monday of this week:

Geraldton, Western Australia, August 8, 1915.

In continuation of my letter of last mail I thought I would like to let you know result of sale of "The Toast is Britain." As I told you, I had it framed and gave it to Sick and Wounded Fund here, and last evening it was put up for auction and realised the splendid sum of 4*l.* 15*s.*, and I am delighted with result. Our total sum for above fund in Western Australia alone up to Friday night was over 50,000*l.*, and the closure does not take place for another week. Australia itself will contribute millions, and all here are doing their utmost for the cause. Sparing nothing, and will send the last man and shilling to see this conflict end in the Old Country's favour. Thanking you for your kindness, yours faithfully, CLEM. H. JONES.

Our boys are doing well at Dardanelles.

"CHYMOL," the new nutrient emulsion manufactured by the Chymol Co. (Armour & Co., Ltd.), Atlantic House, Holborn Viaduct, London, E.C., whose introduction was mentioned in the *C. & D.* last month, is a preparation which should be of special service to old and young during

the cold season, when it is necessary to ward off illnesses by judicious nutrition. "Chymol's" distinction in this respect is that it supplies to bone, blood, and muscle the natural elements. It resembles malt-extract in appearance, and contains that preparation, besides the proteids of egg-yolk, fat, and fresh red bone-marrow (as well as pancreatin), the emulsification being perfect, so that it is possible for "Chymol" to be used by children as a table delicacy in place of butter or jam, and for them its hæmatinic properties are peculiarly valuable. "Chymol" is put up in novel containers, which are hermetically sealed, but the tops are easily removed, and another is provided in each case. There are three sizes: trial package, containing 4 oz., to retail 1*s.*; regular size (18½ oz.), 2*s.* 6*d.*; and hospital and family size (5½ lb.), 10*s.* Chemists who have not yet seen the preparation should write to the makers in regard to it.

Personalities.

Authenticated notes are inserted without charge if not in the nature of advertisement, and subject to Editorial approval.

LIEUTENANT J. E. H. DAKIN, of the Motor Machine Gun Service, who is with the Expeditionary Force, has been wounded.

MR. J. W. HEARNshaw, chemist and druggist, Market Place, Spalding, was on September 6 knocked down by a cyclist and had his right arm fractured besides other injuries. He is making a satisfactory recovery.

MR. IVAN LEVINSTEIN, Past President of the Society of Chemical Industry, has resigned his position on the Board of the Manchester Chamber of Commerce in consequence of ill-health.

LANCE-CORPORAL GEORGE ARTHUR McMILLAN, only son of Mr. James M. McMillan, chemist, Ayr, from the Ayrshire (Earl of Carrick's Own) Yeomanry, has been gazetted second lieutenant in the Cameronians (Scottish Rifles) as from August 27.

MR. J. TAYLOR PEDDIE, F.S.S., has published at 2*s.* 6*d.* through Longmans, Green & Co. a book on "The Relation of Imports to Exports," forty-eight pages being devoted to this subject, and the chapter is followed by one of forty pages on foreign exchange.

ALEXANDER RINTOUL NESS, son of Mr. Thomas Ness, chemist and druggist, Darlington, and an apprentice on board the s.s. *Verdala*, of Glasgow, has been presented by the King, on the recommendation of the President of the Board of Trade, with the bronze medal for gallantry in saving life at sea by rescuing a seaman who fell overboard in Cowes Roads on August 11.

MR. PETER LEECH, chemist and druggist, Helsby, Cheshire, informs us that the Helsby business that has been advertised in our Supplement for sale is not his. An explanation is necessary, because Mr. Leech is, and for over two years has been, the only registered chemist and druggist in business at Helsby, and he has had a considerable number of inquiries in regard to the advertisement, thus giving him much unnecessary correspondence.

MR. W. K. INGLIS, chemist and druggist, 109A King Richard's Road, Leicester, and Mrs. Inglis have not heard

anything since April 14 of their son, Driver H. M. Inglis, 2nd F.A. Brigade, Artillery Ammunition Column, Australian Expeditionary Force. Mr. Inglis, jun., went to Victoria, Australia, two years ago to take up farming, and enlisted in the Australian Artillery Corps on August 20, 1914, having been in the Territorials in this country and attained the rank of corporal. His father and mother heard regularly from him until April. When his brigade finished training near Cairo they went to the Front. Nothing has been heard from him since. He is twenty-four years of age. We reproduce a recent photograph of him, and trust that anyone on active service who sees this and knows him will communicate with his father at the above address.



MR. H. M. INGLIS.

MR. DAMJAN NEDOMATCHKY, of Belgrade, Serbia, is now in London, having come to purchase medical and pharmaceutical supplies. Mr. Nedomatchky is the agent in the

Balkans for the A. Wander Company, the well-known Swiss manufacturers, whose London branch is at 45 Cowcross Street, E.C. Mr. Nedomatchky informed us that on the invasion of his country by the Austrians a little over a year ago three pharmacies in Belgrade were totally destroyed in the bombardment and four others partly destroyed, while in other districts in Serbia into which the Austrians penetrated all the pharmacies were plundered and the interiors totally wrecked. There are over 160 retail pharmacies in Serbia, and the qualification of the pharmacist is a little higher than that of the British Minor man. There are also eight wholesale houses in the country, which have hitherto drawn the bulk of their supplies from Austria and Germany. Serbia has suffered more from disease than from fighting casualties. Typhus was brought into the country by the Austrians, and twice as many soldiers died from this as from wounds. One of the consequences was a great scarcity of medical supplies, as has already been indicated in the *C. & D.* by the communications from Mr. W. Bates, of Southampton, who is taking a keen personal interest in Serbian matters. As our readers are aware, several hospital contingents have gone out from this country to Serbia, and have done splendid service in combating the epidemic that prevailed. Mr. Nedomatchky informs us that no fewer than 135 doctors, most of them young and clever men, died from typhus. The people are doing their best against great difficulties to put things straight, and they are looking to this country to help them in supplies of remedies and medical comforts, and as far as he can Mr. Nedomatchky will, during his mission, devote himself to this purpose in a business way.

Westminster Wisdom.

By the "C. & D." Parliamentary Representative.

THE NEW SESSION.

Parliament reassembled at St. Stephen's, Westminster, on Tuesday afternoon, September 14, for a short session of three days a week.

THE BUDGET.

The Chancellor of the Exchequer announced in the House of Commons that he will introduce his Budget early next week. This (our Parliamentary correspondent understands) will be on Tuesday.

REBATE ON MEDICINAL SPIRITS.

It is stated that the regulations under which rebate is to be paid of the extra duty on immature spirits used in the preparation of certain medicinal compounds—a subject which formed the basis of considerable negotiation before Parliament separated for the summer recess—are about to be issued from the Board of Customs and Excise. It is doubtful whether the concessions made will be generally applicable; indeed, it is believed that preparations employed as flavouring agents will not be included in the rebate, as has already been stated in the *C. & D.*; also those who obtain the rebate will have to keep a record of the amount of spirit purchased and the uses made of it.

Mr. W. C. Bridgeman, M.P., who has taken a prominent part throughout in the negotiations, informed our Parliamentary correspondent that during the recess he had been in constant communication with the medical and pharmaceutical bodies. It appears to be uncertain at present whether the deficit in the rebate would be met by a special clause in the forthcoming Finance Bill or take the form of a supplementary estimate to be introduced at a later date.

POISONING BY TETRACHLORIDE FUMES.

On Thursday in the House of Commons the Home Secretary was asked by Mr. W. C. Anderson, M.P., to give a return of the number of cases of poisoning by fumes of tetrachloride of ethane which have occurred during the current year among workers employed in doping or varnishing the covers of aeroplanes, balloons, and similar work, and the number of these cases which have ended fatally; whether certain firms are employing a dope for this purpose which does not contain tetrachloride of ethane; and whether aeroplanes so treated have been found satisfactory. The answer was too late for this issue.

MR. FRANK GALLOP, chemist and druggist, has opened a pharmacy at 53 St. John's Road, Tunbridge Wells.

THE BUSINESS of the late John Cross, chemist and druggist, of 21 High Street and Garlands Road, Redhill, is being continued under the style of John Cross & Co., with Mr. David Macrac, chemist and druggist, as managing partner.

Insurance Act Dispensing.

A Record of matters concerning Chemists' interests in the National Health Insurance Acts.

Reports from Local Centres.

With special reference to the supply of medicines and appliances. See also Association Affairs.

ENGLAND.

Bristol.—At a meeting of the Insurance Committee on September 6 it was reported that the Commissioners have set aside 10,407*l.* as the amount available for emergency settlement of chemists' 1914 accounts, and that 85*l.* 11*s.* 7*d.* is the sum from the special Drug Fund for *ex gratia* payments of war-scheduled drugs. Chemists' accounts for the latter vary from 3*l.* to 16*l.* 19*s.* 9*d.*, but as the Bristol payment for the year will probably be about 94 per cent. of the total, in view of the Commissioners' decision not to make *ex gratia* payments where the deficit does not exceed 15 per cent., the Committee will only be able to claim 4*l.* 3*s.* 4*d.* With reference to the chemists' request that the Committee should refuse after September 1 to pay for any prescription written by panel doctors in such a way as to prevent insured persons having free choice of chemist (see *C. & D.*, July 10, p. 50), the Medical Benefit Sub-Committee reported that the matter had been discussed with doctors' representatives, who had agreed with the principle of the chemists' request, but stated that the doctors are prepared to write any prescription in full if so requested, and agreed to discuss the whole matter with the chemists with a view to coming to an agreement. The Committee accepted this recommendation.

Buckinghamshire.—The Bucks Insurance Committee have paid chemists 80 per cent. of their claims for the past quarter and 13*l.* 5*s.* 9*d.* in respect of increased cost of drugs due to the war.

Devonshire.—The annual meeting of the County of Devon Insurance Committee was held at Exeter on September 6. Mr. Philip F. Rowsell, J.P., moved the adoption of the report of the Sanatorium and Medical Benefit Sub-Committee, and, referring to the manner in which District Committees performed their duties, said some overstep those duties. One District Committee, for example, wanted to discuss the conduct of the chemists in their district—a matter entirely outside the scope of the Committee.—At a meeting of the Sanatorium and Medical Benefit Sub-Committee held on September 13, Mr. Rowsell was re-elected Chairman.—The balances for 1914 due to chemists have been paid in full, as also the amounts due in respect of Form Med. 39.—The Panel Committee some time ago issued instructions to doctors and chemists regarding the supply of proprietary articles, etc., to insured persons. The following were especially exempted from the restrictions: Fairchild's peptonising powders, palatinoids, bi-palatinoids and pulverettes, tabloid drugs for which there is no equivalent tablet in the Drug Tariff, and the following preparations when prescribed for medicinal uses only, and not for sanitary disinfecting purposes: Izal, Jeyes' eyllin, lysol, sanitas, Wright's liq. carb. detergens.

Dewsbury.—At last week's meeting of the Insurance Committee it was reported that several chemists had accepted the Commissioners' emergency settlement for 1914, but that the majority had not done so, preferring to wait until the final credits on the Medical Benefit Fund were received by the Committee. It was resolved that the new West Riding Formulary and the new British Pharmacopœia be adopted.

Essex.—The Pharmaceutical Committee met on Tuesday, September 14, when the following resolution was adopted: "That the Essex Insurance Committee be requested to supply full explanations of all deductions made from the amounts as agreed between the County Insurance Committee of Essex and the contractors whose accounts have been in part disallowed, and in future to be rendered, if possible, monthly." A case of alteration in prescription was brought forward for consideration, this being contrary to instructions issued, and a satisfactory explanation being given, it was accepted. The deadlock at Dovecourt seems no nearer a solution, as the new chemist does not desire to do Insurance dispensing. Three additions to and one withdrawal from the panel were intimated, the latter being due to transference of a business. A request from Southend Pharmaceutical Committee for an acknowledgment of their right to participate in any possible surplus of emergency settlement was agreed to.

Gloucestershire.—The Gloucestershire Insurance Committee has received from the Commissioners the sum of 26*l.* 18*s.* 3*d.* for payment to chemists in respect of the increased cost of drugs during the current year.

Derby.—In regard to the emergency settlement of chemists' accounts for 1914, Mr. W. Elmitt (chemist) explained to the Insurance Committee on September 15 that the original offer was for chemists to accept about 15s. in the pound, but the Pharmaceutical Committee could not advise them to accept without protest. Chemists were subsequently notified that the deficiency in payment would not be more than 15 per cent. This they would accept still under protest. In one exceptional Derby case within Mr. Elmitt's knowledge the deduction in the first place would have been as much as 100 per cent., and, allowing for the *ex-gratia* payment, it would be 60 per cent.

Herefordshire.—At a special meeting of the Herefordshire Insurance Committee held on September 7 (Alderman F. Bulmer in the chair) the Finance Sub-Committee reported having examined certain accounts chargeable to the various funds and recommended the payment of them, it being agreed that the balance of the chemists' accounts, emergency settlement, 1914, of 133*l.* 2*s.* 4*d.*, should be passed for payment. Reporting upon the Drug Fund, the Finance Committee stated that in order to effect an emergency settlement the Insurance Committee had been credited for the year 1914 with a sum of 1,647*l.* in respect of medicines, drugs, and appliances, supplied otherwise than at a capitation rate. This sum enabled the Committee to pay, after correction, all chemists 10*l.*, petty cash accounts 69*l.* 12*s.* 8*d.*, and also the practitioners' accounts in respect of medicines, etc., supplied to temporary residents for the year 1914. The Chairman explained that in this fund there is a balance on the right side of 85*l.* 9*s.* 4*d.*, and, on the instructions of the Commissioners, it is to be carried forward to the credit of subsequent years.

Norwich.—At a meeting of the Norwich Insurance Committee on September 7 the Medical Benefit Sub-Committee was authorised to deal with an application from the Pharmaceutical Committee for administrative expenses. The Finance Sub-Committee reported that the amount calculated by the Commissioners for the emergency settlement with chemists to December 31, 1914, is 3,234*l.* Chemists' accounts amount to 3,261*l.* 10*s.* 10*d.*, and other payments to 165*l.* 17*s.* 7*d.*

Preston.—At a meeting of the Preston Insurance Committee on September 8 Mr. W. L. Holland, on behalf of the Finance Committee, said it was a pleasure to note that there seems to be a chance of chemists being paid up to 35 per cent. of their accounts for 1913 and 1914.

Rochdale.—The Insurance Committee on September 13 adopted the report of the Medical Benefit Sub-Committee, which recommended that chemists be paid the sum of 32*l.* 19*s.* 9*d.* on account of the extra cost of drugs due to the war. It was also resolved to pay chemists 787*l.*, or 90 per cent. of the estimated sum available for accounts, for the quarter ending September 30.

Sheffield.—Mr. H. G. Williams presided at a meeting of the Pharmaceutical Committee at the Insurance Offices on September 15, when it was decided that the Secretary shall only issue revised prices for 8-oz. mixtures of panel Formulae caused through any alteration in the supplementary lists. The Chairman said that chemists may expect an early payment for drugs supplied on the buff forms. A further application from a panel chemist for payment of 50*l.* for prescriptions dispensed during 1913 had been made to the Secretary, who had replied that it was impossible to pay this account as there are no funds. The Committee endorsed this reply. It was unanimously agreed to recommend the Commissioners to appoint Mr. J. T. Appleton (Walkley) to succeed Mr. Newsholme as a member of the Insurance Committee. Messrs. H. G. Williams and H. Antcliffe were appointed delegates to attend the Conference in London next month, and were instructed to endeavour to procure the abolition of the discounting clause in the 1915 contract. The Committee, after examination of the prescriptions of a panel practitioner, decided to send them to the Panel Committee as they were considered to constitute a very excessive demand upon the Drug Fund.

Walsall.—At this month's meeting of the Insurance Committee the Medical Benefit Sub-Committee reported that Drs. Drabble and Rosser had been appointed to serve on the Drug Accounts Sub-Committee as well as Mr. F. E. Bannister and Mr. J. W. Bates, who had been nominated by the Pharmaceutical Committee (whose election had been reported by Mr. Uglov Woolcock). The latter Committee had also elected Mr. G. F. Cornhill, Mr. H. E. Belsher, and Mr. J. H. Stretton to serve on the Pharmaceutical Service Sub-Committee. The Derbyshire Insurance Committee's resolution in regard to getting the following questions placed on the notice-paper of the House of Commons was received and was allowed to lie on the table. The questions called for an explanation of the deductions by the Commissioners from chemists' accounts, the reason for no adjustment of the 1914 accounts, and calling upon

the Government to instruct the Commissioners to deal with deductions owing to enlistments. The Drug Accounts Sub-Committee reported upon the checking of prescriptions for 1915, which Mr. E. J. George offered to do at 10*s.* per 1,000 prescriptions. The alternative to this was to join the checking scheme for the Smethwick, Wolverhampton, West Bromwich, and Dudley districts, but the Committee resolved to accept Mr. George's offer and to request him to furnish his report in the first week in October.

West Bromwich.—The September report of the Insurance Committee states that application is to be made to the Pharmaceutical Committee for the sum of 2*l.* 10*s.* per quarter towards the cost of checking prescriptions, any adjustment necessary to be made on the fourth quarter's contribution after the precise amount has been ascertained. A special drug grant of 15*l.* 10*s.* 8*d.* has been paid to chemists for "war drugs." The Sanatorium Benefit accounts, amounting to 22*l.* 3*s.* 8*d.*, have been paid in full. Of chemists' accounts for 1914, 2,165*l.* has been paid, which includes 233*l.* 17*s.* 10*d.* emergency settlement, making a total payment of 96,694 per cent. Chemists' accounts for 1915 were paid in full. The average cost per prescription during 1914 was 7.11*d.*, against 6.56*d.* for 1913.

West Sussex.—At a meeting of the West Sussex Insurance Committee on September 10, the Medical Benefit Sub-Committee reported an inquiry from the Insurance Commissioners as to whether any action had been taken by the Insurance Committee, with a view to the adoption by the Panel Committee and the Pharmaceutical Committee of joint arrangements for the checking and analysis of prescriptions. It was recommended that the Insurance Commissioners be informed that the matter received consideration in October last, when it was decided that, as an examination of the chemists' prescriptions in the past had not disclosed any necessity for checking and analysis, no arrangements be entered into with the Panel and Pharmaceutical Committees. The report was adopted.

SCOTLAND.

Fifehire.—A special meeting of the Pharmaceutical Association, in regard to the position of the Drug Fund, was held at Thornton on Wednesday, September 15, Mr. Yule presiding. The Secretary (Mr. Stewart) stated that the deficiency amounts to 713*l.*, or 25 per cent. of the accounts. The Chairman accounted for this through (1) diminished income on account of so many men being with the Colours; (2) extravagant prescribing; and (3) the naval base being a great drain on the funds. Messrs. Buchanan, J. H. Fisher, P. Robertson, Scott, and others also spoke, and it was suggested that engagements should be terminated. Mr. D. Gilmour (Dunfermline) deprecated giving up the work, because this would put members outside any scheme of improvement, and because dispensing is their legitimate work. Mr. J. R. Hill made an important speech dealing with the whole position. Questions having been put and answered, it was agreed to defer coming to a decision, but to call a special meeting in October with that object.

Forfarshire.—A warning to exercise economy in administering the Insurance Act was addressed by the Scottish Commissioners to the County Insurance Committee at its meeting on September 11. The Chairman stated that if more money is not forthcoming for sanatorium treatment it will fall upon the local authorities.

Glasgow.—A circular-letter, signed by the Secretary of the Pharmaceutical Committee and the Clerk to the Insurance Committee, intimating that from September 1 Glasgow panel chemists may send in Insurance prescriptions unpriced, has been issued. This brings the Glasgow Insurance Committee into line with others as to checking by the Central Bureau.

Lanarkshire.—At a meeting of the Pharmaceutical Committee at Motherwell on September 8, Mr. A. A. Dick (Bellshill) presiding, the Checking Bureau's report for June was submitted and seventy-nine forms were disallowed. The practice of supplying proprietary articles still continues, and the Insurance Committee Clerk was asked to send a special letter to chemists on the panel stating that the rules would be strictly enforced.

WALES.

Denbighshire.—Chemists have this week received cheques in full payment of their July and August accounts. Accounts in this area are sent in monthly.

PRIVATE A. H. BOYD, 7th Dublins, who is reported as missing in Gallipoli, is the eldest son of Mr. William H. Boyd, Glensavage, Stillorgan (director, Boileau & Boyd, Ltd., Dublin). Private Boyd is nineteen years of age, and was engaged in Boileau & Boyd's for twelve months before he enlisted.

Coming Events.

This section of the "C. & D." is reserved for advance notices of meetings or other events. These should be sent to the Editor by Wednesday of the week before the meetings, etc., occur.

Sunday, September 19.

Pharmacists' Voluntary Training Corps, Westeyan Training College, 130 Horseferry Road, London, S.W., at 10 A.M. Drill.

Tuesday, September 21.

West Bromwich Pharmaceutical Association, at Messrs. Bullus's at 9 P.M. Consideration of Pharmaceutical Society's circular, "Proposals for Certain Reforms."

Wednesday, September 22.

Manchester Chemists' Assistants' Association, Medical School, Coupland Street, at 9 P.M. First of a course of lectures on hygiene and sanitation by Quartermaster A. Price. Drill and bandaging from 7 to 9 P.M.

Thursday, September 23.

South-East London Pharmacists' Association, Maitland House, 134 Greenwich Road, Greenwich, at 5 P.M. Commandant Atkins on "The Pharmacists' Training Corps: its Aims and Objects."

WESTERN PHARMACISTS' ASSOCIATION.—A re-union will take place on Thursday, October 7, at Frascati's Restaurant, Oxford Street, London, W. Reception by the President (Mr. A. R. Melhuish) and Mrs. Melhuish at 7.30 P.M. A musical programme will be provided and supper will be served during the evening on the balcony. Invitation tickets to members, to include one lady, are being forwarded. Extra tickets may be obtained at 3s. 6d. each person from the Hon. Secretaries, Mr. Chas. Brooks, 6 Northumberland Avenue, W.C., and Mr. W. E. D. Shirliff, 66 Goldhawk Road, Shepherd's Bush, W. The first ordinary meeting will be held on October 13, when there will be a discussion on the Insurance Act.

Association Affairs.

Essex.—The Committee of the Association of Pharmacists met on Tuesday, September 14, when the following were appointed delegates to the conference of Local Associations: Messrs. J. H. Matthews, T. England, and C. Goode. A reply from A. & F. Pears was received regarding the sale of their preparations. It was decided to approach where possible the Local Committees and also headquarters with regard to "Rep. mist." in dependants' prescriptions.

Glasgow.—The Council of the Glasgow and West of Scotland Chemists' Association decided on Monday to accept the offer of the P.A.T.A. to provide a lecturer on one night during the coming winter, and the Secretary was instructed to ask Mr. W. Johnston to be the lecturer if possible. A formal opening of the new rooms was also agreed on, and to be in October. The Town Council's refusal to make an early-closing order (*C. & D.*, September 11, p. 42) was submitted.

Newcastle-upon-Tyne.—A meeting of the Newcastle-upon-Tyne Pharmacists' Association took place on September 8 in the Church Institute, Hood Street. In the absence of Mr. Noble, Mr. Flemming occupied the chair. Various points in connection with the Conference of delegates were discussed, and delegates were instructed as to the Association's attitude concerning these. It was decided to form a pharmacists' unit of St. John Ambulance Association, and members holding the first-aid certificate (apart from those who recently passed the examination) were invited to join. It was intimated that those pharmacists who took the first-aid certificate are now taking up "home nursing." A letter was read from Mr. Rutherford, Newbiggin-by-Sea, regarding a scheme whereby pharmacists could take up the study of medicine.

Peterborough.—Mr. T. J. Calcutt presided at the meeting of the district Association of Pharmacists at the Angel Hotel, Peterborough, on September 10, when Mr. J. W. Bodger, M.P.S. and Hon. Secretary of the Peterborough Museum, gave a lecture on the *Medicinal Plants Found in and around Peterborough*, this being the second of his series of lectures. Mr. Bodger stated that as a young man he had seen fields of many kinds of drug-plants, such as poppies, caraway, dill, peppermint, and flax, cultivated in the fens of Huntingdonshire, Cambridgeshire, and South Lincolnshire. The growing of drug-plants had now given place in most cases to potatoes. A few acres of poppies are still cultivated in Whaplode Drove, while flax, linseed, and mustard are among the Fen crops of to-day. Mr. Bodger gave the names and characteristics of the plants as well as the habitats and names of places in which he had found them growing wild in the district, the parts of the plants used, the official preparations, active principles, and diseases for which they are used. The lecture was illustrated with living plants

which Mr. Bodger had gathered in the district during the week, and others sent him by the Director of Kew Gardens. A short discussion followed, Mr. Sturton being among the speakers, and Mr. J. W. Hall moved the vote of thanks to the lecturer.

Salford.—The opening meeting of the new session of the Salford Pharmacists' Association was held at 40 The Crescent on September 9, Mr. J. Jones (President) in the chair. Messrs. Simmons, Hamilton, Cuttifford, M. Blore, G. Blore, Dyson, Lewis, Butler, Harrop, Bellringer, and J. L. Davison (Secretary) were also present. Matters in connection with the Conference of delegates to be held next month and of local interest occupied the meeting.

Chemists and the Medical Curriculum.

A MEETING of chemists was held at 17 Bloomsbury Square, London, W.C., on September 15, to consider the means by which chemists could proceed to take the medical curriculum. Mr. W. J. U. Woolcock presided over a meeting of about thirty chemists. The chief points considered were as to the acceptance of Pharmaceutical Preliminary examinations by the medical authorities and how much of the curriculum would be remitted on account of subjects in which chemists have already shown their competence in the Minor or Major examinations. Mr. Alban Atkin gave his experience of dealings with the Conjoint Examining Board of the Royal Colleges of Physicians and Surgeons. He found the Board willing to take into consideration the personal qualifications of chemists in regard to the requirements of the Medical Preliminary. Exemption from the curriculum for chemistry, pharmacy, and other subjects of the Minor examination was also granted, but the examinations have to be taken. Mr. R. J. Rutherford, Mr. W. Walsham, and Mr. Stanley White also gave their experiences, and Mr. James Grier explained the direction in which the Manchester University would probably make concessions, provided that a demand could be shown to exist. Mr. Rutherford stated that nearly 300 chemists had written to him on the matter, and Mr. White and Mr. Walsham have advanced in the matter so far that they are commencing medical studies next month. Among the Preliminary examinations which the Conjoint Board has agreed to accept in particular cases are the Junior Local, the old Pharmaceutical Preliminary, and the Second-class College of Preceptors, but each case requires to be considered on its merits. Eventually a Committee of four was appointed to carry the matter further in the interests of chemists who wish to qualify in medicine. The committee consists of Messrs. Alban Atkin, R. J. Rutherford, James Grier, M.Sc., and J. G. Walker. In the discussion it was mentioned incidentally that one chemist had obtained considerable concessions from the dental curriculum in consideration of certain classes taken at the City and Guilds Institute. Mr. Atkin mentioned also that the hours required to be away from business during the time of the medical curriculum would be 10 to 12 in the morning and 2 to 4 or 3 to 5 in the afternoon, with Wednesday afternoon and Saturday free.

Mr. J. G. Walker, one of the Committee appointed, has since written to suggest that pharmacists interested in the matter should communicate with him at 86 Moyser Road, Streatham, London, S.W., and that contributions towards the expenses of printing and postage would be welcome. Mr. Walker suggests that 2s. each person would be a suitable contribution.

AMERICAN QUICKSILVER.—The final figures for the production of quicksilver in the United States in 1914 show an output of 16,548 flasks, valued at \$811,680, or 3,665 flasks less than in 1913. This decrease was entirely due to a much smaller yield from California. The production from California, which amounted to 15,591 flasks (\$627,223) in 1913, was only 11,303 flasks (\$554,414) in 1914. The production of Nevada increased from 1,645 flasks (\$66,178) in 1913 to 2,089 flasks (\$102,465) in 1914. The combined output of Arizona and Texas increased from 2,977 flasks (\$119,765) in 1913 to 3,156 flasks (\$154,801) in 1914. The present outlook does not indicate any largely increased domestic production.

Legal Reports.

Trade Law.

Medicine-stamp Acts.—At Old Street Police Court, London, on September 9, Reginald G. Stewart, Church Road, Leyton, was summoned before Mr. Clarke Hall, at the instance of the Commissioners of Customs and Excise, for selling a dutiable medicine (Holland's Embrocation) without a licence. Mr. Walker, for the Excise authorities, stated that the defendant had carried on a business at Grange Street, Hoxton, as a manufacturer by wholesale of the embrocation named, but it was long suspected of being sold retail, and every bottle so sold required a 1½d. stamp. On two dates in July two officers of Excise purchased at the Grange Street premises each a bottle of the embrocation, paying 6d. for it to a girl. In neither case was the stamp on the bottle, and it was said that over 1,000 bottles were on the premises unstamped. Defendant said he had only recently taken to the business, and had been victimised, the place being now shut up. He had no knowledge of the retail sale, which was probably an appropriation by the girl. The Magistrate said the retail selling was the offence, and fined the defendant on four summonses, 6l. in all.

Chemists' Assistant's Commission.—At Margate County Court on September 9, before Judge Shortt, Hewlett & Co., chemists and druggists, Margate, sued R. J. Pulpher, a former assistant, for 6l. 10s. 9d. retained by him as commission claimed to be due. Mr. C. C. Maughan stated, on behalf of the plaintiffs, that in October 1914 the defendant was engaged at a weekly salary of 2l. 7s. 6d. and commission of 5 per cent. if the turnover exceeded 500l. within the next twelve months. Defendant was dismissed, and thereupon rendered to Mr. Hewlett an account of moneys received, deducting 6l. 10s. 9d., which he claimed as commission earned, although none was due until the returns of the completed year showed a turnover of over 500l. Mr. W. M. Rosser, partner in the plaintiff firm, gave evidence in support of this statement, and correspondence between the parties was read. Defendant said he thought the correspondence showed that he was entitled to receive commission on a turnover of 500l. a year, though he had not been with the firm for a twelvemonth. He would not have regarded a salary of 2l. 7s. 6d. per week as sufficient if there had been nothing else coming to him in the form of commission. His Honour read the letters and said the defendant's statement was entirely inconsistent with the terms of the letter in which he had accepted the engagement; he therefore held that defendant must repay 6l. 10s. 9d., and gave judgment accordingly.

Limited Companies.

New Companies Registered.

P.C. means Private Company and R.O. Registered Office.

BERRIDGE, BEGS., LTD. (P.C.).—Capital 2,000l. Objects: To carry on the business of wholesale and retail grocers and provision merchants, chemists, druggists, etc., and to adopt an agreement with Annie R. Berridge. R.O., 3 Albert Street, Northampton.

STONE & SON, LTD. (P.C.).—Capital 4,500l. Objects: To take over the business of manufacturing, wholesale, and retail chemists and druggists carried on at 166 Fore Street and 11 Cowick Street, Exeter, and elsewhere, as Stone & Son, and to enter into an agreement with E. F. Stone. The first directors are E. F. Stone, Mrs. A. P. Stone, E. G. Laing, and Mrs. M. R. Rowe.

GRAY'S CHEMICAL-WORKS, LTD. (P.C.).—Capital 22,000l. Objects: To carry on the business of manufacturers of and dealers in mineral, chemical, industrial, and other products, and to adopt an agreement with G. MacElwee. The first directors are G. MacElwee, R. Sewell, and H. H. Ayscough. R.O., 4 Broad Street Place, E.C.

Company News.

UNITED INDIGO AND CHEMICAL CO., LTD.—The directors report that the profits for the year which ended June 30 were 28,849l., compared with 7,595l. in the previous year. With balance from 1914, and after payment of 5 per cent. on the preference shares for twelve months and 5 per cent. on ordinary shares for six months, 35,848l. is left. The directors recommend that both dividends should be increased to 15 per cent. for the year, leaving 25,900l. to be carried forward.

London Salon of Photography.

THE exhibition opened at 5a Pall Mall East, London, W., on Thursday afternoon comes very close to realising the aim of showing only that class of work in which there is a distinct evidence of artistic feeling. There is an innovation in the method of displaying the exhibits, plain glass being used to cover the prints after they have been affixed to the walls, thus avoiding the use of frames. The result is pleasant, and might well be adopted as a permanent method. Examples have been gathered from workers all over the world, the consequence being a wider range of subjects. No. 285 is a clever silhouette of a Chinese wedding, and makes effective contrast to 226, a sombrely successful study of a funeral in the snow. There are some delicate architectural studies, No. 19 should be noticed for its truth of tone.

Pictures of children are difficult, but there are some here which have quite caught the unconsciousness of childhood, notably No. 220, a child and a kitten; No. 174 giving a group of street children watching a show is full of character in the faces. The nude is still a difficult problem, but Nos. 80 and 94 show a broad effect, and No. 117 is quite successful.

Portraiture is well represented. There is a picture of the Prime Minister in happy mood, and one of the "Minister for Munitions," which has caught the underlying strength behind the characteristic humorous expression.

No. 249 realises well the effect of storm. No. 280 is an interesting view of the inside of Liverpool Street Station.

Sentiment has its part in the making of pictures as is well shown in 318—a silhouette of the "Boadicea" statue against a swirl of storm clouds—the title "A Call to Arms" being most appropriate to the feeling of the picture. Nos. 59 to 63 will prove interesting to all engaged in colour work.

Canada Balsam.

SOME interesting particulars have been received from the Mallinckrodt Chemical-works, Ltd., of Montreal, in regard to the collection of Canada balsam at the source, the chief fact about which is that this year there will be approximately only 50 per cent. of the quantity gathered compared with last year, and this, the company inform us, is going to make a considerable difference in prices later. The balsam is usually collected in the backwoods of the Northern Mountains about twenty miles from Montreal, in the early days of May, when the weather conditions are usually favourable. About this time the collectors are started off up-country, where they have to be grubbed and staked for probably a fortnight or more, the collection proceeding daily and at times very slowly. The majority of the collectors are old and experienced hands, and every care is taken with the gathering, but even with hard work it is difficult to secure more than five or six pounds of the balsam per day. As a result of the hot weather the balsam is secreted into vesicles on the bark of the tree (*Abies balsamea*), and at night it cools. The collector pierces the vesicle with the pointed spout of a can which serves to receive the oleo-resin. All the balsam is subsequently carried to a convenient centre and placed in a larger can to be transferred to some shipping point. Practically all the Canada balsam that is shipped from Montreal can be relied upon as quite genuine, but the product that is sold in New York may be mixed with Oregon balsam, and it is impossible to tell the difference excepting through an exhaustive analysis. To make Canada balsam thicker it is placed in a drying-oven, when all the volatile matter escapes, and the result is a very thick or almost crystalline balsam. New York brokers have always considered the balsam as one of their very profitable articles, and it was formerly shipped to Germany in very large quantities. Labour conditions in Canada are responsible for the shortage this season, and as already indicated, there are likely to be some wide fluctuations in price in the near future.

THE IMPORTS of perfumery, pharmaceutical and chemical products into Chile during 1914 amounted in value to 525,110l., against 424,872l. in 1913.

Trade Report.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. Retail buyers cannot, therefore, for these and other reasons, expect to purchase at the prices quoted here.

42 Cannon Street, E.C., September 16, 6.30 p.m.

A FAIR amount of business is passing in the drug and chemical markets, with some good inquiries on behalf of our Allies. Prices, however, show little signs of ease at the moment, and owing to temporary scarcity many of the inflated values have to be paid by those whose needs are urgent. Raw materials in some instances are, however, becoming more plentiful, and lower prices for several of the synthetic products ought to be seen shortly. Meanwhile the United States is receiving very fair quantities of chemicals and raw products from Germany *via* Scandinavian ports, and if the British Government should raise the embargo on goods lying at Rotterdam for the U.S.A., there may be a further temporary relief. Phenacetin has been sold at a further advance. Formaldehyde, hexamine, oxalic acid, and potash permanganate are on the easier side. Arsenic and Montreal potashes are dearer, with values nominal. Among drugs, gentian is firmer; new chamomiles are arriving. Menthol on spot is maintained at last week's auction rates; *nux vomica* is still on the easy side; quinine is quite steady. Tinnevelly senna has arrived freely. Newfoundland cod-liver oil is in good demand. Quinine is dearer, with speculators operating. Among essential oils, lemon, bergamot, and orange are unchanged, with an easy undertone. Star-anise oil is lower; American peppermint oil is firm but quiet on spot.

Higher	Firmer	Easier	Lower
Agar-agar (c.i.f.)	Ammonia sulphate	Copper sulphate	Anise oil (star)
Arsenic	Gentian	Formaldehyde	Apiol (green)
Cassia lignea	Linseed-oil	Hexamine	Palm oil (Lagos)
Coriander-seed	Peppers	Oxalic acid	Quicksilver
Cumin-seed	Soya oil	Potash	
Fennugreek-seed	Sulphonal	permang.	
Glucose	Turpentine		
Menthol (c.i.f.)	Wax, veg		
Phenacetin	(Jap. c.i.f.)		
Potashes			
Quinine (sec.-hands)			
Shellac			
Squill			
Starches			

Cablegram.

NEW YORK, September 16.—Business in drugs is active. Opium is steady at \$7.40 per lb. for druggists' quality in single cases. Both peppermint oil and menthol are also steady at \$1.50 and \$2.60 per lb. respectively. Cartagena ipecacuanha is lower at \$2.40. Senega is firmer at 36c. per lb., and Curaçao aloes is dearer at 15c. Copaiba balsam is steady at 32c.

London Markets.

ACETANILIDE will be cheaper when aniline oil becomes more plentiful; both American and English makers are endeavouring to increase their output.

AGAR-AGAR.—Business has been done in No. 1 quality at 2s. 6d. c.i.f. for August-September shipment.

ALOES.—Curaçao in cases is comparatively scarce, and second-hands ask high prices, wanting 70s. for fair capey quality, and 77s. for livers.

AMMONIA SULPHATE is the turn firmer at 14l. per ton net, naked at works, London, for 25-per-cent. ammonia; Hull, 24-per-cent., is 14l. 10s.; Liverpool, 14l. 12s. 6d.; Leith, 14l. 15s. per ton in bags f.o.b., less 3½ per cent.

ANISE OIL (STAR).—The spot price of "Red Ship" has declined to 3s. 4d. per lb., and to arrive, September-October shipment is quoted at 3s. c.i.f.

ANISEED is firm, Spanish having been sold at 38s. 6d. per cwt. on the spot.

APIOL.—Green is obtainable at the lower price of 30s. per lb., but only small lots offered.

ARSENIC is difficult to obtain owing to the scarcity of labour in Cornwall and Devon; the quotation is therefore somewhat nominal, and probably 30l. would have to be paid.

ATROPINE.—A retail business has been done in the pure alkaloid at 92s. 6d. per oz., but it cannot be repeated; sulphate is quoted from makers at 100s.

BALSAM PERU is quoted at 16s. to 16s. 6d. per lb. net on spot, according to holder; some forward business has been done at 15s. 6d. c.i.f., being firmer.

BELLADONNA-LEAVES.—A small parcel is offered at from 310s. to 320s. on the spot.

BERGAMOT OIL testing 38-per-cent. esters is quoted at 12s. per lb. c.i.f. London for prompt shipment.

A Sicilian advice, dated September 4, reports that the market, after a few days' firmness, is again weak, and the position is similar to lemon and orange oils, recorded below.

BISMUTH SUBNITRATE.—There are buyers at from 13s. 9d. to 14s.

BROMIDES.—It is believed the supplies are sufficient for all requirements, but the American makers hold back and only offer small quantities from time to time, so that they can maintain the present inflated level of prices. From 10s. to 10s. 6d. is obtainable for potassium and sodium, but the ammonium salt is particularly scarce, makers having reduced their output; 12s. 6d. and more would have to be paid.

CALABAR-BEANS are offered at from 8d. to 9d. per lb. on the spot.

CAMPHOR OIL is offered at 70s. per cwt.

CAMPHOR (REFINED).—Sellers of Japanese 2½-lb. slabs quote 1s. 5½d. per lb. c.i.f. for November-December shipment.

CANARY-SEED is steady at 74s. to 77s. 6d. per quarter for ordinary to good Morocco.

CARAWAY-SEED is firm at 40s. per cwt. for fair Dutch on the spot.

CASCARA SAGRADA.—The spot prices are from 55s. to 56s. per cwt. for one-year-old bark on the spot, and new is offered at 45s. c.i.f.

CASEIN.—At a naval-prize sale held in London on September 14, 203 bags, lying in Bristol, were sold at from 4d. to 4½d. per lb.

CASSIA LIGNEA.—Spot holders have raised their asking-price to 45s. per cwt. for fair selected; to arrive, 32s. 6d. c.i.f. is quoted.

CASTOR OIL.—First pressing in barrels is quoted 37l. 15s. per ton in London; good seconds Calcutta is quoted at from 33½d. to 4d. per lb. from store, Liverpool.

CELERY-SEED.—Spot supplies are extremely small at from 120s. to 130s., and to come forward 165s. c.i.f. is quoted.

CHAMOMILES.—Some arrivals have taken place from the Continent, but the colour is poor; 140s. is asked, and a few good white are obtainable at 145s. Some Belgian flowers are coming forward, but the price is not yet fixed.

CHAELMOOGRA OIL is quoted at 2s. 9d. to 2s. 10d. per lb.

CINCHONA.—The auction of pharmaceutical bark to be held at Amsterdam on September 30 will consist of 1,484 packages, weighing 86,371 kilos. The first-hand stock at Amsterdam on September 9 consisted of 10,375 packages Government and 46,388 packages private bark, including the quantity to be offered on September 29 and 30.

CLOVES, after a lengthy dull period, have shown more activity this week, the sales comprising fair Zanzibar on the spot at from 6½d. to 6¾d.; to arrive, September-November and October-December shipment have been sold at 5¾d. to 5⅞d. c.i.f. d.w.

COCA-LEAVES.—The auction to be held at Amsterdam on September 30 will consist of 1,585 packages Java, weighing 80,224 kilos., of which 360 packages, weighing 15,958 kilos., will be sold on N.O.T. terms.

CODEINE.—The pure crystals are quoted at from 22s. 9d. to 23s. per oz. net.

COD-LIVER OIL.—Our Bergen correspondent writes on September 6 that no business is reported in Norwegian medi-

cinol oil, and the quotation is therefore nominal. Meanwhile 1914 oil has been sold on the spot at 320s. and some 1915 oil at 350s.; for shipment a limited quantity is offered at 325s. per barrel c.i.f. London. There is a good demand for Newfoundland oil, and, owing to the large demand in the United States, it is anticipated that higher prices will have to be paid; finest medicinal quality is quoted at about 265s. to 270s. per barrel.

COPAIBA.—Maranham filtered is offered at 1s. 8d. and Maracaibo filtered at 1s. 8½d.

COPPER SULPHATE is easier at from 26l. 10s. to 27l. per ton for the usual Liverpool brands.

CORIANDER-SEED is dearer, a good business having been done at 13s. 3d. to 13s. 6d. per cwt. for ordinary Morocco and at 14s. for good bright.

CUMIN-SEED is dearer. Fair Morocco has been sold at 77s. 6d. per cwt., and 80s. is now asked for the small quantity on the spot.

DIGITALIS-LEAVES are offered at 85s. on the spot.

EPSOM SALT.—A large new maker in the United States has come into the market and the supplies are better; this may possibly weaken the market.

FENNEL-SEED is firm at 24s. per cwt., but there is very little offering.

FENUGREEK-SEED is dearer, 12s. per cwt. being now required for good new crop Morocco on the spot.

FORMALDEHYDE has been more freely offered of late, and 65s. will buy. New York advices are that large quantities have been bought for export, but most orders have now been completed, and stocks are accumulating somewhat.

GENTIAN is scarcer, and held for the firmer price of 34s. per cwt.

GLUCOSE is dearer at 16s. per cwt. for the usual American or English brands of corn-syrup. *Starches* are also dearer at 14s. 9d. for powdered and 14s. 4½d. for pearl ex wharf London.

GUAIACOL CARB.—Further supplies are expected from neutral countries, and the scarcity is only likely to be temporary.

HEXAMINE.—The fact that English make of satisfactory quality is now being produced should check any upward tendency; 5s. 3d. to 5s. 6d. is quoted.

HYDRASTIS is quoted at from 21s. to 23s. per lb. net on the spot as to quantity and seller.

LEMON OIL is unchanged, with good brands offering at 4s. to 4s. 3d. per lb. c.i.f. London and spot at 4s. 3d.

A Sicilian advice, dated September 4, states that the complete lifelessness of our market for lemon and orange oils, of which we spoke in our last, has prevailed during the last fortnight also, and prices have given way little by little. Pressers of oil, who have not previously wished to dispose of their stocks, and holders of last season's pressings, continue to hope that a recovery of the market will set in, and therefore do not force business; on the contrary, they show themselves reserved at any demand which may arise. This attitude has caused a slow decline instead of a slump in prices, but, as we have said before, high prices are impossible under present conditions.

LIME OIL.—West Indian distilled is offered at from 9s. to 10s. per lb. on the spot. Twenty-four cases have arrived from Dominica.

LINSEED is slow of sale at 60s. to 62s. 6d. per quarter for good quality.

LITHIA CARBONATE is offered at from 4s. 8d. to 4s. 10d. per lb. as to quantity.

MENTHOL.—The spot price of Kobayashi-Suzuki is now 9s. per lb. A sale of 50 cases Suzuki is reported for September-October shipment at 8s. 6d. c.i.f.; also September shipment at 9s. and October-November at 8s. 7½d. c.i.f. As some misapprehension has arisen in regard to our report of last week's auction sale of 4 cases at 9s. to 9s. 3d. per lb., we are informed by the selling-brokers that the lot in question "was sold, after considerable competition, to one of the largest chemical manufacturers in London, by a well-known dealer on the drug-market as the under-bidder."

MILK-SUGAR is quoted at from 70s. to 71s. per cwt.; fair arrivals are taking place.

MINT OIL.—The spot price of Kobayashi is 2s. 11d. and Suzuki 2s. 10d. per lb. For October-November shipment 2s. 7½d. c.i.f. has been paid.

NUX VOMICA.—Prices are still on the easier side, with spot sellers at from 18s. to 18s. 6d. per cwt.

OILS (FIXED).—*Linseed* is firmer on the week, pipes on the spot closing at 26s. 6d. and barrels at 27s. 3d. *Cottonseed* is firmer at 27s. for crude in pipes, 30s. for pale

refined in pipes, and 34s. 6d. to 35s. 6d. for sweet refined in barrels, all spot. Ceylon *Coconut* is steady at 43s. 6d. in hogsheads and 42s. in pipes; *Cochin* is unchanged at 44s. to 47s.; London pressed is 33s. 9d. *Colza* is firm at 34s. to 35s. for ordinary brown, naked, on spot, and 36s. to 38s. for British refined in barrels. Lagos *Palm* is 30s. 6d. spot, and 28s. 3d. ex store Liverpool, the latter being easier. *Soya* is firmer at 23s. 6d. c.i.f. London on passage; *Hul* (spot extracted) is 24s. 3d.

OPIMUM.—The London market is quite steady, at from 23s. to 24s. per lb. for Turkey druggists' on the spot. Stocks of this grade are very small on the spot, as no fresh permits to import are being granted by the British Government. Persian is also steady, with a moderate business doing at from 18s. to 20s. per lb. on the spot, according to test.

The following is a telegram from Reuter's Hong-Kong correspondent, dated September 11: "Sethna's Fortnightly Market Report' states that a Chinese company in Canton has opened negotiations with the Hong-Kong Opium Combine for the purchase of the stocks of opium in Hong-Kong with a view to clearing the existing stock within nineteen months. The matter has been referred to the Bombay Combine."

ORANGE OIL.—Sicilian, sweet or bitter, is quoted at 6s. 6d. per lb. c.i.f. London.

OXALIC ACID is slightly easier at from 11d. to 11½d. per lb. delivered London.

PEPPERMINT OIL.—The spot market is firm and unchanged at 7s. 3d. to 7s. 6d. net for best brands of American tin oil which prices are also asked to come forward. H.G.H. is quoted 12s. per lb., London terms.

PEPPERS are very firm and again dearer. Fair black Singapore has been sold at 5½d. and fair Tellicherry at 6d. to 6½d. To arrive Singapore for September-October shipment is quoted 5½d. Fair white Singapore has been sold at 8½d. and Muntok at 10½d. on the spot. To arrive: good business has been done, including Singapore for September-October shipment at 8½d. c.i.f. d.w.

PHENACETIN.—One of the principal firms of selling agent have sold out their stocks this week at from 35s. to 37s. 6d. per lb.; other dealers ask 38s. to 40s.; further consignment are expected shortly.

POTASHES.—First sort American are quoted at 105s. per cwt., and first Government brand Montreal at 125s. on the spot.

POTASH PERMANGANATE.—The easier tendency has now assumed more definite shape and holders are showing more anxiety to realise their stocks. It is probable that this may be due to the supplies which are coming in by way of neutral countries.

QUICKSILVER has declined a further 5s. per bottle to 16l. 10s. for Spanish.

QUININE is dearer, with a good business in the usual Continental brands of sulphate at from 1s. 8½d. to 1s. 10d. per oz. The advance is due partly to manipulation on the part of speculators, but it is still possible for consumer to buy from a Continental maker at 1s. 9½d. for forward delivery, and business has been done thereat.

SALICYLATES are unchanged at from 15s. 6d. to 16s. for sodium crystals and 15s. for salicylic-acid powder.

SALOL is obtainable at 25s. per lb.

SANTONIN.—The values are from 152s. 6d. per lb. upwards, hand-to-mouth buying is the rule.

SENEGA.—The spot value is 2s. net, the arrival value being 1s. 8d. to 1s. 9d. c.i.f.

SENNA.—Arrivals aggregating over 1,200 bales Tinnevely from Indian ports have taken place.

SHELLAC has advanced about 3s. per cwt. with a good demand, the sales including TN Orange on a basis of 69s. E and O pure is quoted 72s. 6d. and fine Orange 85s. AC Garnet 64s. to 64s. 6d. and G.A.L. 63s. Futures are also dearer.

SQUILL.—Some quiet buying has taken place recently on the spot, and 30s. is now asked for fair white and 22s. 6d. to 25s. for brown.

STRAMONIUM-LEAVES have been selling at from 60s. to 65s. per cwt.

SULPHONAL is firmer at from 28s. to 30s. per lb.

TURPENTINE has fluctuated between 34s. 6d. and 34s. 9d. per cwt. for American on the spot, closing at 34s. 9d.

WAHOO-BARK OF ROOT is obtainable at from 1s. 9d. to 1s. 11d. net on the spot, as to seller.

WAX, JAPANESE.—Sales of November shipment have been made at 55s. c.i.f., being dearer; spot value is 50s.

WITCH-HAZEL EXT. is quoted at 8s. 6d. per gal. net.

THE CHEMIST & DRUGGIST SUPPLEMENT.

OFFICE: 42 CANNON STREET, E.C.

SATURDAY, SEPTEMBER 18, 1915

TO ADVERTISERS IN THIS SUPPLEMENT.

The Publisher desires to make it clear that advertisements of Businesses for Disposal and Wanted, Situations Open and Wanted, Exchange Column, &c., **MUST BE PREPAID** (except in the case of serial advertisers), and to ensure prompt insertion **REMITTANCES MUST ACCOMPANY INSTRUCTIONS.**

Advertisements for the current issue cannot be received after 4 p.m. on Thursday in each week. If it is necessary to telephone or telegraph an urgent announcement this may be done

PROVIDED the MONEY is TELEGRAPHED

at the same time and the fact made clear that the money order is to be delivered at 42 CANNON STREET, LONDON, E.C. Advertisers will assist greatly in the preparation and quick despatch of the Supplement by making careful note of these rules. Telephone: No. 3617 Central (3 lines). Telegraphic Address: "Chemicus Cannon London." (Three words counted as two.)

BEST RESULTS EVERY WEEK!



That is what advertisers in The Chemist and Druggist Supplement secure. Not indefinite returns from spasmodic and inflated circulation, but regular, steady success—the best possible in the Drug Trade. It gives

THE PUBLICITY IT PAYS TO PAY FOR.

CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

Telephone Number: City 2283.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

1.—LONDON, S.W.—Established Business, chiefly ready money, and situate in busy main thoroughfare; returns about £2,200; gross profit 50 per cent. (about); lease 21 years; ill-health cause of sale; further details on application.

2.—LONDON, S.W.—Ready-money Business; returns £1,800; excellent sale for own Proprietaries; attractive shop, double-fronted; terms, goodwill £50, stock and fixtures at a fair valuation.

3.—LONDON, N.W.—Modern Pharmacy; rapidly increasing; returns, present rate, £1,500 per annum; attractive shop and good stock; all open to inspection; valuation and small premium only required.

4.—LONDON, W. (Distant Suburb).—Retail and Dispensing Business; returns about £650 under management; net profit £200; capable of considerable increase under the personal supervision of a principal; price £475.

5.—LONDON, N.W.—Good-class Family Retail and Dispensing Business; returns £1,000, increasing; handsomely fitted, double-fronted shop; price £450, less than value of stock and fixtures.

6.—LONDON (Favourite Residential Suburb).—For immediate Disposal, good-class Business; returns £1,300; net profit 25 per cent.; the concern is known to us, and we can recommend it; valuation, with premium for goodwill to be arranged.

7.—LONDON, N. (Main Market Thoroughfare).—Ready-money Business, chiefly small trading; returns between £900 and £1,000 per annum; gross profit 50 per cent.; price £350, or near offer.

8.—LINCS.—Good Country Business; returns, present rate, £1,300 per annum; net profit £300; double-fronted shop; rent £40; lease if desired; price £900; part payment entertained.

9.—GLOUCESTERSHIRE.—Mixed Business; established many years; returns between £700 and £800; net profit about £200; good residence, with garden attached, stocked with fruit trees; rent £21 10s.; no opposition; terms, valuation; part payment.

10.—SOUTH COAST.—Old-established Business, essentially Dispensing and good-class Retail; returns £2,500; the shop is handsomely fitted and is situate in one of the principal streets; terms, valuation of stock and fixtures.

11.—SOUTH OF SCOTLAND.—Good-class Retail and Dispensing Business, together with Photographic Sundries; returns £700, increasing; net profit 25 per cent.; scope for considerable development; price £450.

12.—BERKS.—Good-class Business, Dispensing and Retail; returns £747, and capable of increase; prices above the average of Retail trade; rent £34, sub-let £10; long lease; no opposition; offer wanted; illness cause of sale.

13.—NOTTS.—Light Retail, Dispensing, and Photographic; splendid opening for Dentistry and Optics; returns between £1,000 and £1,100; net profit £250; rent £35; no near opposition; price about £800.

14.—WORCESTERSHIRE (Death Vacancy).—For immediate Disposal, old-established Business, Retail, Dispensing, with some Photography; returns £800; scope for doing double under energetic management; well-fitted, double-fronted shop; large house; offer wanted.

VALUATIONS FOR STOCKTAKING.

Messrs. O. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties, and will make Special Terms for such services.

ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.

BRETT & CO.

Licensed Valuers,

73 LAUREL ROAD, LEICESTER.

Telegrams, "Brett Leicester."

Telephone 1934.

F. J. BRETT, M.P.S.,

GIVES PERSONAL ATTENTION TO ALL VALUATIONS.
NO CHARGE TO BUYERS.

AGENCY.—We have always a large number of *Buyers* on our books, and we can frequently find a purchaser at once. We also have a *Private Register* for vendors who are in no hurry to sell, and who do not wish their businesses to be advertised.

STOCKTAKING SPECIALISTS to the Entire DRUG TRADE.

£1,000 returns.—LONDON.—Large double-fronted shop, fitted by Maws; returns increasing; net profit £300; price £450; good-class Family Retail, with good opening for Photo, Optics, or Dentistry.

£1,100 returns.—MIDLANDS.—Good market town; increasing; price £725.

£1,375 returns.—SOUTH WALES.—Large double-fronted shop, with good house and large garden; net profit £375; lease; Light Retail, Dispensing; price £850; vendor is joining the Forces, and will allow a trial to prove the business.

£500 returns.—SURREY.—Light Retail, in charming village; vendor, joining the Army, will accept £300, and also sell the good-class furniture at a sacrifice to first genuine buyer.

£1,500 returns.—LANCASHIRE.—General Light Retail, with some Wholesale business; is increasing, and younger man would find plenty of scope; price £500; vendor retiring from business.

Returns over £800.—SMALL COUNTRY TOWN, SURREY.—Net profit over £200; General Light Retail, capable of much increase; price £400.

NICE Country Retail; never changed hands except from father to son; returns about £1,200, with a net profit of £300; price £550, or £100 goodwill and valuation of stock and fixtures; rent £40; lease will be granted, as vendor owns the premises.

**We have cash Buyers for businesses from
£500 to £5,000.**

**Valuations conducted upon the shortest notice
at moderate fees.**

BERDOE & FISH

VALUERS & TRANSFER AGENTS,

35 Jewry Street, Fenchurch Street, City.

Telephone: 1809 CENTRAL.

NO CHARGE TO PURCHASERS.

1.—LINCS (Market Town).—Light Family Retail Business, with own Specialities; returns about £1,350, increasing; large double-fronted shop, well fitted and stocked; low rent; price £900.

2.—WILTS.—Unopposed Light Country Retail, with Mineral Waters; returns £1,200; net profit £300 clear; large house and garden; stock worth £650; price £700.

3.—S. WALES (Seaport Town).—Good middle-class Retail; returns £1,400; net profit about £375; fine position; large house and garden; stock and fixtures worth about £800; price £850.

4.—CHESHIRE (Border of).—Light Retail, Dispensing, and Agricultural Business in small town; returns about £1,200; net profit £300; double-fronted shop, fully stocked; price £650.

5.—HOME COUNTY.—High-class Dispensing and Light Family Retail; no opposition; returns about £1,450; net profit £360; good house and garden; modern fitted Pharmacy; good stock; price £800.

6.—KENT (Delightful Locality).—Good-class Country Retail, unopposed; returns £950; no Optics or Photo; large shop; excellent stock; good house; low rent; price £500; good introduction.

7.—GLOUCESTERSHIRE.—Light Family Retail, no Panel or Side-lines; returns £600; good profits; plenty of scope; low rent; nice house and garden; main-road position; price £250.

8.—LONDON, W.—Cash Retail; returns over £1,250; net profit £350; Assistant kept; price £550, or valuation.

9.—NORTH LONDON.—Cash Retail, Prescribing, and Dispensing; no immediate opposition; returns £1,036; net profit £350; modern Pharmacy, well stocked; price £500.

10.—LONDON, S.E.—Light suburban Retail, increasing; returns £1,500; net profit over £400; books properly kept; good house; excellent stock; price £850, or valuation terms arranged.

STOCKTAKINGS.

We undertake stocktakings on a very low scale of commission or an agreed fixed fee, and also price out Chemists' own stocktakings. Please apply for our terms.

Businesses Wanted. Buyers Waiting.

PARSON C. BAKER

1 MOUNTFIELD ROAD, CHURCH END, FINCHLEY, N.

50 years' experience in every branch of business.

Recommended by—BRITISH DRUG HOUSES, LTD.

MEGGESON & CO., LTD.

BARCLAY & SON, LTD.

Tel. No. Finchley 812.

All correspondence should be addressed as above.

And at 174 VICTORIA ST., S.W., Ph C. Tel. No. Victoria 27.

GROWING WESTERN SUBURB.—New Business; doing £500.

NORTHERN SUBURB.—Returns £1,000; net profit £350; good shop and house; rent £38; unopposed; first reasonable offer; vendor purchased elsewhere.

BEAUTIFUL district, Surrey; population 4,000; increasing Country Retail, now over £500; rent £35; double-fronted shop, good house, stable, etc., nice garden; vendor joining Forces; £300 or offer.

GOOD WESTERN THOROUGHFARE.—Returns over £1,000; well-fitted, large shop and good house, giving profit rental of £25; value of stock and fixtures.

DEATH VACANCY.—Good Country Business; 20 miles out; returns over £2,000; net profit over £400; small goodwill and valuation, or offer; strongly recommended.

VALUATIONS, Examinations, and Reports; moderate terms; prompt personal attention.

THOS. TOMLINSON & SON

CHEMISTS' VALUERS, TRANSFER AGENTS,
AND EXPERT STOCKTAKERS,

45A MARKET STREET, MANCHESTER.

ESTABLISHED OVER HALF A CENTURY.

Telegraphic Address: "Tomtom."

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

BUSINESSES FOR DISPOSAL.

3s. 6d. for 50 words or less; 6d. for every
10 words or less beyond, prepaid.

The Advertiser may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

BIRMINGHAM.—Genuine middle-class Business for Sale; turnover £600; good profits; satisfactory reasons for disposal. Full particulars on application to 240/26, Office of this Paper.

BLACKPOOL.—Sound Business, occupying commanding position; handsomely fitted, well stocked; turnover £680; valuation £400; no reasonable offer refused. Apply, 239/28, Office of this Paper.

BRISTOL.—Small but profitable Drug Store for Disposal in good working-class district; qualified man could greatly increase; ill-health only reason for sale; well stocked; low rent; money has been and can be made there; price £275. Apply, c/o J. W. Baker, 8 Julius Road, Bishopston, Bristol.

CARDIFF.—An exceptionally profitable Business for immediate Disposal in main suburban thoroughfare; low rent; lease 12 years to run; electric light; turnover £1,200, increasing; no Side-lines; opening for Dentistry; present hands 14 years; books kept; investigation invited, and fuller particulars to bona-fide purchasers; an excellent opportunity for capable, steady man; price £500, or near offer. Apply first to 32 Sandringham Road, Cardiff.

CARDIFF.—Busy main road; good-class Light Retail and Dispensing Business; cause of selling, accepted Army appointment; returns about £1,400; net profit close on £400 yearly; good house and garden; low rent; long lease; trial allowed; bare valuation accepted, about £800; no goodwill asked in order to sell quickly. Full particulars of Berdoe & Fish, Valuers, 35 Jewry Street, Fenchurch Street, E.C.

BUSINESSES WANTED.

A SMALL, good-class Pharmacy wanted, where qualification is not essential, Dispensing and sale of scheduled poisons nil; country town, with garden. 237/39, Office of this Paper.

WE (Messrs. Berdoo & Fish) desire to notify intending vendors that we have at the present time a large number of clients desirous of purchasing Businesses, and that we shall be pleased to send our terms of business to Chemists desirous of disposing of Businesses returning £800 to £5,000. Our address is 35 Jewry Street, Fenchurch Street, City.

TO LET.

MANCHESTER.—Well-fitted Shop, No. 3 New Brown Street, just off Market Street; this is in the centre of the business area of the city, and there is a large traffic along the street; rent £70. Apply, William Wilson & Son, Estate Agents, 5 New Brown Street, Manchester.

FOR SALE.

COMplete set of Chemist's Fixtures, comprising two nests of Drawers, Shelves for shop-rounds, three Show-cases, Counter (with Drawer), and show Carboy. G. W. Ibbotson, Drug Stores, Boothroyd Lane, Derby.

MUST Sell at once, slightly used National Till; keys 1d. to £2; prints ticket. Write, "C. H.," 64 Packington Street, Essex Road, N.

PARTIALLY extracted Ginger and Red Pepper in coarse powder; offers wanted. 241/29, Office of this Paper.

PORTABLE Ozoniser, by Ozonair, Ltd.; 3 ft. by 5 ft. by 3 ft. 6 in. overall; complete with drying chamber, air pump, motor (230 volts, alternating), switches, flex, ammeter, voltmeter, and wattmeter; also dynamo, motor, etc., for use with direct current, 150 volts; condition as new; very little used. 241/290, Office of this Paper.

SOME serviceable Shop Fixtures for Sale, including good Counter, Show-cases, nests of Drawers, Shelving, Carboys, etc. Full particulars from Coley, Bannut Trees, Stroud.

1 LB. 550 Saccharin, 27s. 6d.; 1 cwt. Liquorice Juice, 98s.; 1 cwt. 1d. packets Epsom Salt, 32s. 6d. 235/10, Office of this Paper.

AGENCIES.

TRAVELLERS offered excellent Side-line; Agency for Sanitary article universally wanted; expenses and commission. State towns covered, Campion, 58f Hatton Garden.

SITUATIONS OPEN.

3s. 6d. for 50 words or less; 6d. for every 10 words or less beyond, prepaid.

The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

RETAIL.

BLACKPOOL.—Smart, up-to-date unqualified Assistant, about 24; good Dispenser and Window-dresser; permanency; used to quick Cash trade; three Assistants kept; hours 8.30 to 8.30, Wednesday 1 o'clock, Saturday 11 o'clock; Sunday one in three; progressive salary to right man. Send photo and references, with full particulars, Galloway, Blackpool.

BOURNEMOUTH.—Junior Assistant wanted (outdoors), with Dispensing experience. Apply, with reference, and stating salary required, to F. E. Bilson, 1 Lansdowne Crescent, Bournemouth.

BOURNEMOUTH.—Experienced Assistant for Retail Counter; qualified preferred; outdoors; hours 9 to 8; shop closed from 1.15 to 2.15. Apply, with usual particulars, to J. K. Matterson, The Arcade, Bournemouth.

BRIGHTON.—Wanted at once, for good-class Retail and Dispensing business, gentlemanly unqualified Assistant; outdoors; reasonable hours. Send photo, if possible, giving experience, salary required, and references, to Muston, 57 Western Road, Brighton.

CENTRAL Scotland, industrial city, main thoroughfare, and central; old-established Chemist's Business; been neglected, but premises have been modernised and turnover quadrupled in last two years; good Photographic business; moderate rent; price £250 with valuation of stock and fittings, about £1,200; reason, joining Army. Apply, "Confidence" (241/35), Office of this Paper.

GATESHEAD.—Death Vacancy; Family Retail and Dispensing Business in populous and thriving district; established 15 years; good N.H.I. returns; Prescribing connection; stock modern and in good condition; rent moderate; good position. Apply, Wilkinson & Simpson, Ltd., Newgate Street, Newcastle-on-Tyne.

HANTS (Residential and Military Centre).—Medium-class Light Retail, Dispensing, and Optical Business; returns 1915, first six months, £1,074, at same rate twelve months, £2,148; price £1,400; part can remain; full information given to genuine purchasers; sole reason selling, devoting time to Dental work; fine opportunity for qualified Chemist-Optician. Reply, 238/8, Office of this Paper.

LANDORE, SWANSEA.—Due to owner having decided to retire from Retail trade end of September, and having a small genuine Business to offer upon advantageous terms, wishes to meet a suitable successor; good house; rent low; N.H. Dispensing; old established. Particulars from Dryden, Cloverley, Eversley Road, Sketty, Swansea.

LONDON, W.—Dispensing, Prescribing, Light Retail; Cash trade; nicely fitted shop, well stocked; good house; returns last year £500; pleasant locality; valuation, stock and fixtures. "Cooper" (242/12), Office of this Paper.

LONDON, West.—Ready-money Retail, in a good marketing thoroughfare; under management last 10 years; returns £900, at very profitable prices; an energetic principal could do £30 weekly with ease; price £450; worth attention; personally inspected and recommended. Apply, Berdoo & Fish, Valuers, 35 Jewry Street, Fenchurch Street, E.C.

MIDDLESEX.—Good-class Retail and Dispensing; established over 10 years; proprietorship unchanged; returns average £860; Pharmacy large, double-fronted, mahogany fitted, well stocked; rent £60; lease; excellent house; price £550 cash; good reason for disposal; thoroughly genuine offer. 239/38, Office of this Paper.

MIDDLESEX.—Exceptionally Light Family Retail, in very desirable district; good house and shop, garden; books prove a net profit for the last four years of over £500 per annum; price £775; state of health sole cause of sale. "Middlesex" (227/34), Office of this Paper.

SURREY Village.—Old-established Country Business; returns £500, scope for large increase; profits good; good house and garden; long lease, and very low expenses; stock and fixtures worth quite £300; nearest offer accepted for quick sale; owner enlisting as soon as free. 235/6, Office of this Paper.

YORKSHIRE.—Middle and working class suburb of large manufacturing town; returns £1,000, and increasing; net profit £350; price £650; good opening for Optics. "Yorks" (227/304), Office of this Paper.

A BARGAIN.—A rare opportunity to secure an elegant, up-to-date Pharmacy for a small sum, for immediate cash; in the Piccadilly district. Apply to Mr. Scorey, 52 Chandos Road, Cricklewood, N.W.

ADVERTISER, offered position abroad, wishes to Dispose of his Retail Business immediately; will sacrifice for quick release; £400 or near offer, less than stock and fixtures; takings averaged 1914 over £20 weekly; on lease; good position; Lancashire; wine licence. 238/20, Office of this Paper.

FLY-CATCHER AND-VERMICIDE FACTORY, London; established Business and valuable Trade-mark throughout England and Colonies; owner selling on account of ill-health; sale price £500. Write, "Factory," 65 Mayfield Road, Sanderstead, Surrey.

FOR Sale, in thickly populated neighbourhood, an old-established Drug Business; rent £32 and rates; well stocked and fitted; reason for selling proprietor having been called up to serve in Army; for quick sale, £80. Apply, Sunderland, 1 Melville Street, Lincoln.

GOOD Country Retail in large market town, North-East; returning close upon £1,400, with very good profit, as it is easily worked; good house and premises; rent £40 on lease; price £800, or £100 goodwill and stock and fixtures at valuation. "North" (227/340), Office of this Paper.

TRUSTEES' Sale of two desirable freehold Salesshops and Dwelling Houses, both occupying main-road positions, residential suburbs of Bradford and Shipley; one been occupied by Chemist and Druggist many years; other offers a really good opening; selling under cost at £500 and £650; near offers considered for immediate sale. Write, Box 805, Williams's Advertisement Offices, 29 Kirkgate, Bradford.

£20.—Chemist's Business for sale; bottles and fixtures alone worth the money; good opening for Panel. "P. E. B.," 42 Rhodeswell Road, Steptoe, E.

BRISTOL.—Wanted, Junior or Assistant, as soon as possible, for Light Retail and Dispensing. Apply, with full particulars as to age, experience, references, salary required, and enclose photo, to Dunford, 8 North Street, Bedminster, Bristol.

BRISTOL.—Young qualified Assistant wanted; Dispensing (good class); easy position; comfortable home. Carte de visite, references, and salary asked to Edward Maish, Cotham Brow, Bristol.

BUXTON.—Unqualified Assistant wanted early in October; outdoor situation; weekly half-holiday; no night duty. Apply to W. T. Young, Young & Sons, 7 Spring Gardens, Buxton, Derbyshire.

DONCASTER.—Junior or Improver; Light Retail and Dispensing; with some knowledge of Photography; outdoors; easy hours; 8 to 7.30, Thursday 1, Friday 9, Saturday 10; no Sunday duty. State age, height, references; and salary required to Hodgson & Hepworth, Ltd., Doncaster.

FAVERSHAM.—Wanted at once, Assistant; used to Dispensing, Agricultural business; weekly half-holiday; no Sunday duty. Please apply, with references, salary, and age, to Thomas, Chemist, Faversham.

FOLKESTONE.—Junior Assistant wanted (outdoors), for good-class Dispensing and Retail business, with Photography; moderate hours; knowledge of French useful, but not essential. Full particulars to F. G. Curtis, Pharmaceutical Chemist, 94 Sandgate Road, Folkestone.

GORLESTON-ON-SEA.—Qualified Assistant for pleasantly situated Light Retail and Dispensing business; indoors; comfortable home; full particulars as to age, salary required, and references; would suit elderly or semi-retired gentleman. P. R. Hill, 90 High Street, Gorleston-on-Sea.

HOVE.—Wanted, smart young Junior or Improver; outdoors. Apply, with full particulars as to experience, salary, etc., to Flatman, Chemist, Western Road, Hove.

LEICESTER.—£2 Salary.—Smart, unqualified Assistant, age about 27, required for progressive business. Brisk Cash trade. State when at liberty: 239/170, Office of this Paper.

LIVERPOOL.—Smart Junior or Improver; also Apprentice; hours 8.30 to 7, Saturdays 1 o'clock; no Sunday. Full particulars to 225/14, Office of this Paper.

LONDON.—Unqualified Assistant required for a good-class business; comfortable; permanency; suit middle-aged man very well. 239/017, Office of this Paper.

LONDON, N.—Junior, early in October; salary £2 weekly (outdoors); one whole day off every week; must be good Counterman and Dispenser, and possess knowledge of Photography; hours 9 to 9.30 p.m., Saturdays 11 p.m. Photo and full particulars to "Fides" (240/36), Office of this Paper.

LONDON, N.—Qualified Manager wanted; good references essential. Apply, stating age, height, experience, and salary required, to Dow Brothers, 44 Seven Sisters Road, Holloway, N.

LONDON, N.—Unqualified Assistant; good-class Light Retail and Dispensing. State age, height, experience, salary required, and enclose photo, Starmer, 92 High Street, North Finchley, N.

LONDON, N.—Assistant (outdoors), for Dispensing and Retail business. Please state age, height, references, salary required, and experience, to F. J. Sandberg, 22 Regent's Parade, North Finchley, N.

LONDON, S.E.—Wanted, an experienced Assistant; outdoors; must be a good Dispenser and Counterman; also a Junior Assistant. Apply, with full particulars, stating age, height, experience, salary required, etc., to 241/4, Office of this Paper.

LONDON, S.E.—In a Retail and Prescribing Branch a capable, trustworthy man to partly take charge, and is energetic; indoors. Apply, with references, age, etc., to "Chemist," 9 The Village, Old Charlton.

LONDON, S.W.—Messrs. Savory & Moore require a qualified Assistant (Minor qualification); lady or gentleman; good Dispensing experience essential. Apply, "Manager," 29 Chapel Street, Belgrave Square, S.W.

LONDON, S.W.—Assistant wanted at once for Light Retail and Dispensing; outdoors. Apply, Lloyd, 125 St. John's Hill, Clapham Junction, S.W.

LONDON (S.W. Suburb).—Assistant (outdoors) for Dispensing and Retail business. Please state age, references, salary required, and experience to C. J. G. Bunker, 30 York Street, Twickenham.

LONDON, S.W.—Required, Counter Assistant; under 30 years; gentlemanly appearance and address; hours approximately 9 to 6. Apply, giving particulars and experience, to "L.J.," 957, Sol's Advertising Office, Fleet Street, E.C.

LONDON, S.W.—Qualified Assistant required early in October; comfortable berth; good and progressive salary. Apply, E. F. Strickland, 28 The Broadway, Ealing, W.

LONDON, S.W.—Junior Assistant; indoors; must be a neat and accurate dispenser and accustomed to good-class business. Apply, stating salary and usual particulars, to J. Selley, 202 Earl's Court Road, South Kensington, S.W.

MANCHESTER.—Elderly, qualified, wanted; light duties; hours 9 a.m. to 8.30 p.m.; Wednesday closed 1 p.m. to 6 p.m.; full half-day allowed Thursdays from 1 p.m.; Saturdays 10.30 p.m.; permanency; outdoors; give full particulars in first letter. Address, 241/40, Office of this Paper.

MIDLANDS.—Wanted, a qualified Assistant in a good-class Retail and Dispensing business; outdoors; no Sunday duty. Please apply, giving particulars of experience, etc., to 242/4, Office of this Paper.

NEAR MANCHESTER.—Improver or Junior (outdoors) for quick Cash trade; state age, experience, and salary required; half-holiday weekly; no Sunday duty. Address, stating age, salary, and references, 239/14, Office of this Paper.

NORTH MIDLANDS.—Qualified Assistant; good Light Mixed Retail; outdoors; hours 9 to 8.30, Saturdays 10.30; weekly half-holiday; General and N.H.I. Dispensing; comfortable berth. Reply, 242/5, Office of this Paper.

SHEFFIELD.—Wanted, September 18, a qualified Assistant for the Mixed Retail trade in a working-class district; one having had some experience in this class of trade preferred; N.H.I.; permanency; Thursday half-holiday; no Sunday duty; outdoors; references to be sent for strict investigation. Exor. J. Watts, 596 Attercliffe Road, Sheffield.

SOUTH-EAST District.—A trustworthy and gentlemanly Assistant wanted for good-class business, about September 27; outdoors; must be capable to take charge, and preference given to one seeking a permanency; light duties and short hours; references must bear strictest investigation. 214/73, Office of this Paper.

SOUTH OF ENGLAND.—Assistant required; experienced; permanency, with good salary. Timothy White Co., Ltd., Chemists, Portsmouth.

SOUTH OF ENGLAND.—Junior wanted for a good-class Retail and Dispensing business; easy hours. Send full particulars and salary required to "B. H." (240/21), Office of this Paper.

ST. LEONARDS-ON-SEA.—Assistant for Dispensing business. State age, experience, and salary required, Nere & Co., Pharmaceutical Chemists, Sedlescombe Road.

SOUTH-WALES.—A really live qualified Manager required for business near Cardiff offering unlimited scope; salary £3, with house free; liberal terms of commission on profits offered to the right man; must be married. "Welsh" (239/17), Office of this Paper.

SWANSEA.—Wanted, competent Junior; outdoors; hours light, no Sunday duty. Please state age, height, experience, and salary expected, to Rees Brothers, Pharmacists, St. Thomas, Swansea.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Wanted, Assistant Dispenser; Minor qualification; salary £100 per annum, luncheon provided; hours 9 a.m. to 5 p.m. Application, with recent testimonials and full particulars, to W. H. Harper, House Governor and Secretary, General Hospital, Wolverhampton.

WORCESTER General Infirmary; Dispenser (either sex); salary £80 per annum; to live out; candidates must send copies of recent testimonials (not more than four), and state qualifications, addressed to the Secretary, F. J. Holland, Secretary, Worcester General Infirmary, 13th September, 1915.

WEST HAM and Eastern General Hospital, Stratford, E.—Wanted, a qualified Assistant Dispenser (male); age 30-40 years; salary 35s., with dinner. Apply, with copies of three recent testimonials, to A. W. Scrivener, Secretary.

ALLEN'S Drug Stores, 155 Praed Street, Paddington, have a vacancy for an elderly qualified man as Locum; easy berth; must have good references.

ASSISTANT wanted (not eligible for Army) about October 11; good-class business; easy hours. State age, height, salary required (outdoors), references, and when disengaged, H. Barnett, Chemist, Hythe, Kent.

ASSISTANT (either sex), capable, about 24, wanted in November for Dispensing and Photographic business; live outdoors. Full particulars and references, to G. Pattison, Pharmaceutical Chemist, 70 Station Parade, Harrogate.

ASSISTANT (unqualified) required in a good Dispensing and Retail business; hours 8.30 to 9 p.m.; duty divided between three; to live indoors with Manager. Please state full particulars as regards experience, age, height, salary, and enclose photo, to Procter, 5 Station Parade, Eastbourne.

SSISTANT, qualified, about 24, for first-class West-End business. Apply, with particulars, to "J. W.," c/o British Drug Ses, 22 Graham Street, City Road, N.

SSISTANT required shortly for Light Retail and Dispensing in good-class suburb (N.W.); age under 30; unqualified, but good experience. Apply, with full particulars, "Pharma-" (241/6), Office of this Paper.

SSISTANT wanted, fully experienced, for Counter and Dispensing; qualification preferred, but not essential to good; references must bear close investigation. Apply, if by r send photo, to R. S. Starkie, 126 Strand, W.C.

SSISTANT required, to attend to Stock, etc.; applications from elderly men considered. Apply, Anderson & Virgo, nists, Worcester.

SSISTANT wanted, unqualified, capable and active, for Light Retail and Dispensing; outdoors; application from a lady d be entertained: personal interview essential. Leighton, nist, 565 Lea Bridge Road, Leyton, N.E.

ANCH Manager for good-class Retail and Dispensing business; gentleman accustomed to Optics preferred. Kindly full details of experience, age, height, and salary required, Silex," c/o Messrs. Maw, Son & Sons, 12 Aldersgate Street,

MPETENT Assistant wanted; one capable of taking charge; permanency to suitable man. Apply, with full particulars age, experience, and salary required, giving references, to Smalley, Chemist and Optician, 12 Carr Street, Ipswich. ications not answered in three days declined with thanks.

MPETENT Assistant; accustomed to good-class trade; outdoors; no Sunday or night duty. Apply, Lewis & Burrows, Holborn Bars, E.C.

MPETENT qualified Dispenser (outdoors) for first-class West-End Dispensing. Apply personally, or by letter, enclosing o and stating height, to "E. G. H.," 1 Southwick Street, Park, W.

SPENSER, qualified under the Insurance Act, wanted for Insurance department only; outdoors; male or female. Apply, ritas" (240/2), Office of this Paper.

DERLY qualified Assistant wanted in a pleasant district a few miles from London; easy hours; duties arranged to suit; od of living as desired; no Sunday duty; weekly half-day ng; personal interview desired, expenses paid after full ulars to 235/12, Office of this Paper.

NIOR Assistant wanted for Dispensing and Photographic business; easy hours; outdoors. Please state age, salary red, and experience, with references, L. E. Thomas, Pharma-Wallasey Road, Wallasey.

NIOR Assistant wanted at once for brisk Retail; smart Salesman and Window-dresser essential. State age, height, disengaged, salary required. Give full particulars experience, ences, etc., to Davies Brothers, Chemists, 10 Hannah Street, 1, Glam.

NIOR Assistant wanted; unqualified; outdoors; Light Retail business; short hours; Wednesday half-day. Apply, stating height, experience, when disengaged, and salary required, to o. Hoyle, Southborough, Kent.

NIOR Assistant wanted for Mixed Country business; good Window-dresser and quick Counterman essential. Apply, full particulars, and stating salary required, Armstrong, Chemist, Seaham Harbour.

NIOR or Improver wanted for good-class Retail and Dispensing business; must be quick and obliging; indoors. Apply, full particulars, salary required, and enclose photo, to F. o. 100 Brompton Road, S.W.

OY Dispenser wanted for private Practice in country; temporary vacancy owing to the war; preferably over 25, with experience; five hours daily, Thursday evening and Sunday live out; 30s. weekly. McLannahan, Stonehouse, Glos.

UM required to take charge for one week in October (Monday to Saturday inclusive). State references and remuneration required to W. W. Bell & Co., 2 Malvern Road, Kilburn.

WSON & PROCTOR, Ltd., Newcastle-upon-Tyne, will shortly require qualified Assistant to Manage Branch; as business ht one, would suit competent lady Pharmacist.

SSRS. TIMOTHY WHITE CO., LTD., Chemists, Portsmouth, require, a capable Pharmacist as Manager; easy hours; good rogressive salary, with excellent prospects.

DDLE October.—Assistant for Country business in Somerset; ood all-round knowledge necessary, and one who can take e if required; wages £2 weekly; short hours. Apply, 239/36, of this Paper.

G. J. GOSTLING, of Stowmarket, wants a lady Assistant for Retail and Dispensing, with experience; qualified or lified; duties light, hours light. Salary required and refer-to-above.

OPTICAL Assistant wanted for Hull, with high-class old-established firm of Opticians; must have good experience in Eyesight Testing and accurate in Frame Fitting; holder of F.S.M.C. or D.B.O.A. certificate preferred; good opportunity to smart, steady man. Apply, with photo and references, Benn Franks, 44 Savile Street, Hull.

PART-TIME Assistant required for Thursdays and Saturdays from 2 to 8 p.m. in good-class Dispensing business. W. Ive, 221 High Street, Kensington.

QUALIFIED Manager; competent, reliable; permanency and good salary to suitable man. Apply, with full particulars as to references, experience, and salary required, to R. W. Crosby, 6 Rutland Road, Harrogate.

QUALIFIED Assistant required for high-class business, with good Dispensing experience, by middle of October; outdoors. Apply, T. E. Savage, Pharmacist, Crouch End, N.

QUALIFIED Assistant; outdoors; good Light Retail. State usual particulars, Roberts, Chemists, Ltd., Dresden, Longton, Stoke-on-Trent.

RELIABLE Junior Assistant required immediately (outdoors). Send full particulars and photo (if possible) to Ralph Cuthbert, Ltd., Chemists, Huddersfield.

RELIABLE Second Assistant (outdoors); chiefly for Dispensing; qualified preferred; good experience and references. Apply, stating age, height, salary, and enclosing photo, to E. Bing & Son, Pharmaceutical Chemists, Canterbury.

SEVERAL smart unqualified Assistants wanted; good salary and commission; only good men required. Apply, with fullest particulars, to 228/02, Office of this Paper.

SMART qualified Manager required immediately; must be energetic and thoroughly reliable; good salary and commission. Apply, by letter only, with full particulars, to 228/2, Office of this Paper.

UNQUALIFIED Assistant as Junior; two kept. Apply, with full particulars, references, and salary required, to Manager, W. Edes Everett, Ltd., St. Botolph's Pharmacy, Colchester.

WANTED, a qualified Assistant as Senior; outdoors; salary £4 per week; hours are from 9 a.m. to 9.15 p.m., except Saturdays to 10.30 p.m. and Wednesdays 8.30 a.m. to 1.15 p.m.; Sunday duty three hours every third week; in first letter particulars are required as to age, height, health, temperance, when disengaged, also duration and locality of previous engagements. Apply, D. P. Roberts, Chemist, 10 Campbell Road, West Croydon.

WANTED, qualified married Manager, indoors, for small Branch; good House; healthy, modern locality, residential middle class; Dispensing and Light Retail; vacancy end of September. Full particulars of experience, photo, and salary required to F. H. Blissett, 10 Victoria Street, Clifton, Bristol.

WANTED, to start immediately, two Assistants, qualified or unqualified; one with knowledge of Photography preferred; Dispensing and Counter. Apply, stating necessary particulars, to S. Taylor, 178 Dalton Road, Barrow-in-Furness.

WANTED, qualified Manager for Branch; abstainer preferred; 25-35; permanency. Apply, 228/3, Office of this Paper.

WANTED immediately, Assistant for divided duty between West End and suburb; over military age or physically unfit for military service; speaking French preferred, but not essential; smart Salesman and good Window-dresser. Apply personally, between 10 and 2, or 4 and 8, to Swire & Co., 294 Brixton Hill, S.W.

RESULTS
OF ADVERTISING IN THIS SUPPLEMENT
LAST WEEK SEPT 11 1915

NATURE OF ADVT	REPLIES
QUAL. MANAGER	13
SIT. WANTED	12
ASSIST.	10
LOCUM	10
BUSINESS WANTED	9

This Blackboard demonstrates that Advertisers using these columns get a ready response to their announcements. The figures only refer to some of the letters RECEIVED AT OUR OFFICE on behalf of Advertisers who use a number or nom de plume.

WAR Vacancy.—Wanted, unqualified Junior; outdoors; middle-class Mixed trade, with N.H.I. work; comfortable berth; hours 8.30 to 8; half-holiday Thursday; Saturday 11; no Sunday duty. Jones, M.P.S., Swinton, Rotherham.

WILLIAMS & ELVEY, 8 West Halkin Street, Belgrave Square, require a qualified Assistant; outdoors; immediately or early in October.

WANTED, by Doctor, a Dispenser, over 50 years of age, lady or gentleman. Apply, Mrs. Payne, Lambsquay, Coleford, Glos.

WHOLESALE.

LONDON, S.W.—Pill hands wanted, age under 30, accustomed to making Pills from private formulas. Write, stating experience and salary required, to "L. J.," 955, Sells' Advertising Offices, Fleet Street, E.C.

A VACANCY occurs in the South American Department of a South London Wholesale Druggists for a Clerk for Shipping and Invoice work; good opening for a man accustomed to similar work in Wholesale Druggists. Write full particulars, stating age, and salary required, to 227/54, Office of this Paper.

BUYER wanted for Patent Medicine and Perfumery Department of large Retail Store; an excellent opportunity for a really capable man; must be married or ineligible for war service. State age, salary expected, and give full particulars of experience (in confidence), 239/8, Office of this Paper.

CHECKER, accustomed to Warehouse work, required by Druggists, Wholesale, London. State wages, experience, etc., to "A. Z." (226/11), Office of this Paper.

CHEMIST required at once in a large Manufactory of Food Products: one fully qualified in Quantitative Analysis, specialising in Fats, Sugars, Essences, etc. Apply, by letter only, stating age, experience, salary required, etc., to 237/31, Office of this Paper.

CLERK required (lady); Shorthand and Typewriting preferred. Please write, stating experience and salary required, to "L. J.," 954, Sells' Advertising Offices, Fleet Street, E.C.

COOPER, Son & Co., Ltd., 80 Gloucester Road, South Kensington, require a laboratory Assistant, with Minor qualifications, and to help in Dispensing. Apply, "A. J. B. C."

COSTING Clerk; immediately; must have good knowledge of Costing methods and some experience of Stockkeeping; to a man who is not afraid of work this is an excellent opening, with prospects of promotion. Apply, "Kudos" (241/27), Office of this Paper.

DRUG Trade.—Experienced Dry Counter hands wanted at once; good progressive wages and permanency offered to the right men. Apply, by letter, to "W. C. H." Burgoyne, Burbidges & Co., East Ham, E.

DRUGGISTS' Sundries.—Assistant with knowledge of Sundries and Surgical Instruments required for City warehouse; state age, experience, and wages required. Apply, by letter, to Sundries Department, Dakin Bros., Ltd., 82 Middlesex Street, Bishopsgate, E.C.

DRY Counterman wanted; comfortable permanency; mention age, experience, and all usual particulars. "B. U." (240/1), Office of this Paper.

EXPERIENCED Drug Packers wanted; home and export; good wages. Apply, 60 Bartholomew Close, E.C.

LABORATORY Assistants required, with general experiences of the Wet and Dry Counters. Write, stating experience and salary required, to "L. J.," 956, Sells' Advertising Offices, Fleet Street, E.C.

LABORATORY Working Foreman, not necessarily qualified, wages £140 per annum, required by London Wholesale firm, to work under chief Chemist; preference given to man with previous experience in similar position. State full particulars to 226/110, Office of this Paper.

OLD-ESTABLISHED house require two Representatives; one for North-Eastern Counties and part of Yorkshire, another for part of Lancashire, Yorkshire, and North Wales. Apply, with full particulars as far as possible to "Prosperous" (228/11), Office of this Paper.

PHARMACEUTICAL Chemist required in Wholesale Department of large high-class firm of Chemists in the Provinces; would be required for Testing Drugs and Laboratory Preparations, and for Experimental work. Mention age, salary desired, and customary information, "S. J." (240/01), Office of this Paper.

PROPRIETARY Goods.—Packing-room Foreman required, at to control staff of girls; married preferred. Age, wages, and experience must be stated, "C.," E. T. Pearson & Co., Ltd London Road, Mitcham.

STILL-ROOM hand wanted, with experience of work in Distilling Oils, Ethers, etc. Apply, with particulars, to 226/5 Office of this Paper.

WET Floor.—Wanted, experienced Assistants. Apply, Willows, Francis, Butler & Thompson, Ltd., 40 Aldersgate Street, E.C.

SITUATIONS OPEN.

(Colonial, Indian and Foreign.)

3s. 6d. for 50 words or less; **6d.** for every 10 words or less beyond, prepaid. The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of **6d.**

CALCUTTA.—Old-established British house in Calcutta requires Junior Assistant, with Minor qualification; age under 27; single; passage paid out and home; four years' agreement; salary first year Rs. 275 monthly, rising yearly Rs. 25 per month. Applicant giving full particulars of qualifications, etc., to 236/4, Office of this Paper.

APPRENTICESHIPS.

LONDON.—Youth; 17; high-class secondary education; energetic; aptitude for profession; slight experience; excellent references; wage expected. "Apprentice," 64 Bow Road, London E.

SITUATIONS WANTED.

1s. for 12 words or less; **6d.** for every 10 words or less beyond, prepaid.

The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of **6d.**

[HOME.] RETAIL.

A PHARMACIST wants position as Manager in London; modern business methods; all-round experience; good references. All particulars to "Kelton" (240/30), Office of this Paper.

A CTIVE, unqualified, married; 23; 8 years' experience, including West-End; reliable Dispenser; Counterman, Window dresser; Cardiff or near preferred. "B.," 54 Stacey Row Cardiff.

ADVERTISER (40), out of business on own account, see Branch Managership; agricultural district preferred; thoroughly experienced; unqualified; can live on premises. Smith Church Bank, Terrington St. Clements.

AS Manager, Senior, or Locum; competent Counterman and expert Window-dresser, experienced Optics and Photograph seeks immediate engagement. "Energetic," St. Helen's, London Road, Pembroke Dock.

ASSISTANT; unqualified; 22; excellent Counter and Dispensing experience; N.H.I.; what offers? Fawthrop, 25 Meyer Crescent, South Hackney, N.E.

ASSISTANT (22), height 5 ft. 9 in., desires change; last but seven years; used to quick Cash trade; Window-dresser and Dispenser. Apply, 238/34, Office of this Paper.

ASSISTANT; unqualified; 38; married; Store experience; I dispensing; Photo; could Manager; near Manchester preferred. State salary, 241/26, Office of this Paper.

BRANCH Manager, qualified, aged 36, requires situation; give reference. McGregor, 510 Hornsey Road, N.

BRANCH Manager or Locum; 45; qualified; experienced London and provinces. "Triamine" (242/21), Office of this Paper.

CHEMIST (20 years' experience), with expert Photography knowledge, life-long abstainer, references unimpeachable; would not object to change; Midlands preferred; only permanent and adequately remunerated berths will be considered. Apply "Kendrick," 2 Cromer Road, Balsall Heath, Birmingham.

SPENSER; part or whole time; temporary or permanent; London; Minor. Offers to 239/7, Office of this Paper.

EXPERIENCED Branch Manager requires responsible position; Midlands or North preferred; successful business increaser; references. "M.P.S.," 22 Sherwood Street, Fallowfield, Manchester.

EXPERT Dispenser; capable; permanency or Locum. Forster, 84 Romilly Road, Finsbury Park, N.

HOSPITAL Dispenser, 15 years, requires similar post; excellent references. "S. R. S." 18 Richmond Hill, Luton.

NIOR; young; unqualified; Counterman and Dispenser; good experience; North London preferred. E. D. Parry, Cefn Waeafawr, Carnarvonshire.

NIOR; 21; high-class Dispensing, Retail, Photography; French, German; hours 9 to 5; City, W.C., or S.W. 236/31, Office of this Paper.

NY Dispenser, Hall qualification, desires post; Doctor, Chemist, or Institution; London preferred. 240/22, Office of this Paper.

NY Dispenser desires post; Hall qualification; Midlands preferred. Miss Hooson, 146 Carr House Road, Doncaster.

NY Dispenser requires post immediately, with Doctor or Institution; either town or country; good references. Apply, Hogg, 31 Woburn Place, Russell Square, W.C.

NY desires berth with Chemist; Birmingham district preferred; Dispensing, Counter, and Window experience. Apply, Pba., 228 Soho Road, Birmingham.

NY (22) desires engagement (indoors) as Dispensing Pupil and Assistant; some theoretical knowledge, and used to mess. "Cortex," 53 Crowhurst Road, Colchester.

NY; 50 years' wide experience; qualified; good credentials; disengaged. Smith (Manchester), c/o 33 Albert Street, Warrington.

NY, for occasional Saturday afternoon and Sunday duty. "Spiro" (239/6), Office of this Paper.

NY or temporary Manager; 29; married; competent; thoroughly reliable; 15 years' experience all branches; disengaged shortly. Seddon, "Redcliffe," Jesmond Avenue, Wembley, Essex.

NY or Management, first week October (except evenings). "Dispenser," 392 Kingsland Road, N.

NY; qualified; 25; first-class experience and references; free now. 242/2, Office of this Paper.

ANCHESTER District.—Young lady desires situation in Retail Chemist's; experienced. 239/15, Office of this Paper.

ANAGER; qualified; 42; shortly disengaged; exceptional West-End and City experience; good references; London district. "A. S.," 28 Silver Crescent, Gunnersbury, W.

ANAGER, otherwise; experienced all classes; married; references; unregistered. "Chemicus," 12 Pentonville, Newport.

ANAGER; qualified; experienced; capable; conversational French; highest references; shortly disengaged; married. "Bla." (240/33), Office of this Paper.

ANAGER, qualified (38), experienced buyer, South Coast and seaside Management, recommended, shortly desires position; prospects; good remuneration; what salary offered? "Opti." (240/31), Office of this Paper.

ANAGER or Assistant; middle-aged; married; Mixed business; country preferred. "Wimbledon," 75 Portway, West Ham, E.

ANAGER; qualified; 30; single; abstainer; tall; excellent references; disengaged. Heap, 54 Sefton Street, Southport.

ANAGER or Assistant; married; 48; good Dispenser; 10 years in present situation; excellent references; Liverpool or Midlands preferred. 241/32, Office of this Paper.

UNQUALIFIED Assistant (15 years' experience) requires situation, London or suburbs; very reliable and trustworthy; speaks French. Write to Mr. H. Roth, 123 rue de Paris, St. Germain, France.

RT-TIME.—Unqualified Assistant requires evening engagement from 6 p.m.; experienced Dispenser. 237/17, Office of this Paper.

RT-TIME.—Qualified Chemist; 27; mornings, afternoons, or both; City experience. 238/400, Office of this Paper.

PHARMACIST (Minor and L.P.S.I. exams.), 41, desires permanency as Senior or Manager; first-class Dispensing and Counter experience. 237/25, Office of this Paper.

PHARMACIST (28), tall, good general experience, requires comfortable berth with or without view to purchase; healthy district; Midlands preferred. Full particulars to 240/14, Office of this Paper.

PHARMACIST desires Part-time or short hours engagement; country business; good all-round experience; personal interview. "W." (242/6), Office of this Paper.

QUALIFIED Manager (elderly) would like to hear from someone requiring a Manager for good-class branch; well up in organisation and modern trade; good all-round experience; many years with present employer. Apply, by letter only, to M. T. Jaques, c/o G.P.O., Leicester.

QUALIFIED lady Dispenser wishes for Part-time work one or two evenings weekly; S.W. district. 238/4, Office of this Paper.

QUALIFIED; over military age; 30 years in trade. Address, 235/34, Office of this Paper.

QUALIFIED, age 28, married, seeks permanency; West Country preferred; good references. G. Williams, 127 Oakhill Road, Putney, S.W.

QUALIFIED Locum; elderly; in or near London. J. Green, 23 Victoria Road, Edmonton.

QUALIFIED; 26; Locum, Senior, or Manager; excellent references; disengaged soon. 239/29, Office of this Paper.

QUALIFIED (elderly) Locum, permanency; excellent references; London; disengaged. 3 Barrow Road, Streatham Common, S.W.

QUALIFIED; 36; Manager or Locum; disengaged September 27; excellent references. "H.," 35 Briardale Road, Lower Bebbington, Cheshire.

R. B. FAIRWEATHER, at present with Mr. Sam Briggs, 197 Hoxton Street, London, N., is desirous of a change; capable and a thorough business man; steady, reliable; as Managing Assistant, or a Traveller's position would be considered. Apply as above.

REGISTERED; Branch, small; age 56; single. "B.," Bank Pharmacy, Luddenden Foot, Yorkshire.

UNQUALIFIED; married; active; 27; good Dispensing experience; Photography; capable of taking charge; state salary and hours; Western Counties preferred. "Statim," 11 Church Road, Upper Norwood, S.E.

UNQUALIFIED Assistant (28) requires Part-time berth with facilities for study. "Cortex," 3 Leaming Road Villas, Bayswater, W.

UNQUALIFIED; 23; tall; good references; varied experience; Manager of Drug Stores or otherwise; Birmingham preferred. "Applicant," 16 Johnstone Street, Aston Manor, Birmingham.

UNQUALIFIED; 25; height 5 ft. 9 in.; abstainer; experienced; Dispensing, Optics, Photography, etc.; highest references; Midlands preferred. Please address, "Chemicus," c/o R. Roulstone, Park Lane, Castle Donington, Derby.

UNQUALIFIED Assistant requires situation in London; 6 years' experience; age 22. Roberts, c/o Mr. Hopkins, Chemist, Pontycymer, Glam.

UNQUALIFIED; 44; experienced Dispenser and Counterman; disengaged October 1; outdoors; permanency; married. 240/27, Office of this Paper.

YOUNG lady Assistant seeks situation in good-class business; Dispensing, Photography, and good Counter experience; capable; Midlands preferred; disengaged October 11. 240/35, Office of this Paper.

YOUNG lady desires re-engagement; at present Assistant Checker for pricing Prescriptions. "N.H.I." (241/21), Office of this Paper.

YOUNG lady, slight previous experience, desires post with Chemist; Liverpool district. 241/36, Office of this Paper.

19 YEARS' sound business experience, Photographic, Agricultural, and Veterinary; permanency required. 239/250, Office of this Paper.

WHOLESALE.

A BERTH required where ability, initiative, organisation, and control are wanted; Drugs or Sundries; full particulars given. Apply to 239/25, Office of this Paper.

A PERMANENT position desired by advertiser; experienced in the Manufacture of Galenicals, Specialities, Emulsions; thorough knowledge of Drugs; Lancs or Yorkshire preferred. 239/21, Office of this Paper.

A DVERTISER: Manager's help; Stockkeeping; experience all departments; warehouse and office routine; interview. 242/8, Office of this Paper.

Q UALIFIED Chemist (27), metallist Chemistry, desires responsible post; Analytical and Manufacturing experience. 238/40, Office of this Paper.

R EGISTERED Pharmacist, with exceptional all-round experience, including Wholesale, Manufacturing and Continental Retail, director of company outside the trade, would like to employ a little spare time in advisory or other capacity. 242/20, Office of this Paper.

S ITUATION required by young man, age 22; disengaged; 6½ years' experience in Drug trade, Wholesale and Retail; used to checking and despatching, but would accept other work; Wholesale preferred; good references. H. E. Bullivant, 1 Knowles Hill Crescent, Lewisham, S.E.

T RAVELLER, experienced commercial training; smart Salesman, open to Represent first-class house; Essences, Oils, Perfumes, etc.; sound connection Manufacturing Confectioners, Mineral-water Makers, Chemists, etc. Apply, 231/28, Office of this Paper.

T RAVELLER desires re-engagement; excellent connection and selling record; qualified Chemist; familiar all branches Drug and allied trades; can influence business; reliable and experienced man with first-class references; disengaged. "Comp." (242/17), Office of this Paper.

T HE Sales Manager and head Representative of world-renowned Manufacturing Chemists and Chemical Engineers will leave for the States and Canada early in October, and would be pleased to hear from any first-class firm requiring Technical and Commercial Representation in the said markets; sound agency organiser and trained Analytical Chemist, and in every way qualified to handle big business; will be away about four months; terms arranged at interview; mark the envelope "Sparklets." 226/1, Office of this Paper.

Y OUNG Belgian Druggist.—Refugee, non-eligible for the Army, seeks employment in Manufacturing or Wholesale house; Speaks French, Flemish, and English. François Domaige, Kempsey Green, near Worcester.

MISCELLANEOUS.

M CADAM & TUCKNISS, Sharedealers, Bank Chambers, Blackheath, S.E. Established 1898. Telephone, 81 Lee Green.

Shares for Sale (free of commission, subject).—250 J. C. Field Ordinary, 14s.; 30 International Sponge Preference, 12s. 4½d.; 93 Welsbach Ordinary, 4s. 3d.; 50 W. B. Fordham, 11s. 6d.; 50 W. J. Bush Preference, 78s. 9d.; £200 4 per cent. Debentures, £76.

Wanted (subject).—200 Lewis & Burrows Preference, 10s. 6d.; 100 J. Crossfield Preference, 20s. 4½d.

Every effort made to effect business for Buyers and Sellers in all Stocks and Shares. Bankers, London County and Westminster.

S ECOND-HAND SHOW-CASES AND SHOP-FITTINGS.—5-ft. Piano Wall-case, £10 10s.; Perfume Case and Desk, Mirror back and Glass Shelves, 58s.; Marble-top Sponge-case, 75s.; 4-ft. Silent Salesman Case, 3 ft. high and 2 ft. wide, 2 Plate-glass Shelves, £7 10s.; 6-ft. Dispensing Screen and Counter, Mirror centre, £7 15s.; hundreds of other bargains. PHILIP JOSEPHS & SONS, LTD., 93 Old Street, London, E.C.

S ECOND-HAND Chemists' Fittings.—We have an exceptionally fine selection of these in all sizes; prices are right, and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, London, E.C.

B EST cash price paid for all old Cameras, any make, also all old Photo goods, no matter how damaged; any kind you may have send them along; cash will be sent same day; no waiting; we buy all and return nothing. S. E. Hackett, 23 July Road, Liverpool, E.

C HEMIST'S BARGAIN, Second-hand.—14-ft. Drugfitting, complete; 2 Wall-cases, Mahogany; Plate-glass Counter; Dispensing-screen and Counter, Counter Drawers divided for labels; 5-ft. Mahogany Bent Plate-glass Counter-case, Perfumery Case and Desk, Window Enclosure, the lot £59 10s.; cheapest house for Window Enclosures, Glass Shelves, modern Shop Fronts, Improvements, etc.; designs, estimates free. Mills, Shop Front, Shopfitting Glass Facia Works, 163-5 Old Street, London, E.C. Phone, 550 London Wall.

WAR WANTS EXCHANGE

The object of this section is to facilitate the interchange of pharmaceutical products which are scarce at present owing to the War, and which the inquirers have failed to obtain through the customary business channels.

TERMS

Minimum charge (including registration fee) of 1/- for six words or less; 2d. per word beyond, prepaid. Inquiries are inserted with a registration number attached to each item, and replies will be communicated direct to the inquirers by the Information Department of "THE CHEMIST AND DRUGGIST."

FOR DISPOSAL.

Bona-fide buyers of the following articles are requested to communicate their exact requirements promptly to us, and we shall place them in touch with sellers:—

Aspirin (Bayer's), 12 × 1-oz. Hydrokinone, ½ lb. (228/1)
bottles (239/22) Salicylic acid, 7 lb. (single
Hydrastin, 1 oz. (239/22) or all) (241/23)

EXCHANGE COLUMN

One halfpenny per word with name and address. One penny per word if we register the address and attach a number. No advertisement inserted for less than 6d.

FOR DISPOSAL.

APPARATUS.

PILL machine, 24, 5-grain, marble slab. Dear, c/o Sholl, Chemist, Watford.

6-GALL. copper evaporating pan; price 20s. 238/19, Office of this Paper.

HAND pill plant (3-grain); used once; adaptable for power; who offers? "A.", 6 Alwyne Square, Canonbury, N.

STILL, Brown's patent, small size; also 4-gall. copper retort tin lined, with block-tin worm; best offer for either or both. Lindsay, 111 Nethergate, Dundee.

DRUGS AND CHEMICALS.

MERCURY, about 14 lb., cash. 238/32, Office of this Paper.

OPTICAL AND PHOTOGRAPHIC.

TRIAL case (American Optical Co.); complete; mounted; good as new; cost £7; Orthos rule and pointer; nearest offer; on approval. 237/12, Office of this Paper.

WANTED.

OPTICAL.—Wanted, cheap second-hand trial frame. Dunphy, Chemist, Bantry.

OPTICAL goods. Particulars and lowest cash prices to 236/1, Office of this Paper.

PERSONAL weighing machine; good condition and accurate. Dennis, Chemist, Northampton.

OPTICAL books; Minor, Major, Chemists' books; send prepaid for valuation; cash offers per return. Gower, Bookseller, 41 Voltaire Road, Clapham, London, S.W.

WANTED: codeina or codeinae phosph. 1 oz., ac. acetylsal., any quantity, in exchange for sod. salicyl. phys. pure, acid. salicylic., sulphonal, cocain, cocain. hydroch.; or will sell for cash. Offer, 235/11, Office of this Paper.

LET US ADVISE YOU

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**QUICKEST POSSIBLE METHOD OF
COMBATING DECREASED TRADE.**

WE produce Showcards that ATTRACT the PUBLIC EYE to your Goods—WE WANT YOU TO TRY THEM. THE RESULTS WILL SURPRISE. Their cost is small.

F. MERTEN & CO., 72 Marlborough Road, Holloway, London; N.

Heavy Chemicals.

The returns of exports of heavy chemicals for the past month may be regarded as very satisfactory under present disturbed conditions. Demand in this department on export account is reported to be on a fair scale, makers not even having sufficient supplies to meet orders against contracts. Bleaching-powder is quoted at from 107. to 127. per ton, but this is quite nominal, and, although there is a report of higher asking-prices, there is no chance of fulfilment of orders for prompt. Caustic soda is also scarce at from 147. 10s. to 157. for 70 to 72 per cent., and 137. 15s. to 147. 10s. for 60 to 62 per cent., on rails. Alum is in good demand. Permanganate of potash rules lower at 2857. to 2907. Yellow prussiate is the turn higher at 2s. 4d. per lb. Carbonate of potash, 96 to 98 per cent., 1757. and 80 to 85 per cent., 1507. White powdered arsenic is 257. 10s. per ton, delivered Manchester. Cream of tartar is unchanged. Oxalic acid is lower at 11d. to 11½d. per lb.; citric is easier at 3s. 1½d. to 3s. 2d., and tartaric is unchanged. There is an easier feeling in sulphate of copper, and buyers accept lower prices at 277. 15s. per ton, Manchester. Sulphur is easier: flowers and roll, 107.; rock, 87. Glycerin is unchanged, but it is reported that the French Government has imposed a fresh restriction on the export except under certain conditions. Sulphate of ammonia remains quiet at 147. London, 147. 10s. Hull, 147. 12s. 6d. to 147. 15s. Leith, and 147. 5s. to 147. 7s. 6d. per ton on rails, Manchester. Benzols and carbolic acid are nominal.

Continental Drug and Chemical Markets.

The following notes chiefly refer to the Hamburg and Berlin markets up to August 28:

AGAR-AGAR in strips is somewhat easier at about m.900 per 100 kilos., owing to the offering of larger quantities.

AMMON. CARB. is no longer obtainable for prompt delivery, October probably being the earliest; no reduction in price is looked for.

ARNICA.—The 1915 crop appears to be satisfactory; from m.120 to m.125 is quoted.

BORAX AND BORIC ACID are very dear; prompt delivery is unobtainable. Powdered borax is only to be had from second-hands at from m.150 to m.160. Crystals are from m.140 to m.150 and boric acid from m.200 to m.210. Prices are expected to become higher still, as there are no imports of raw materials.

CALABAR-BEANS are quiet but firm, at from m.230 to m.240. CALCIUM CARB.—Extra white light precip. has advanced on account of the increased prices of raw material; m.27 has been paid for barrels of 50 kilos. and m.26 for barrels of 100 kilos.

CALCIUM PHOSPHATE.—According to a decree of the Imperial Chancellor, free sale is prohibited. All stocks exceeding a hundredweight must be entered with the "Bezugsvereinigung der deutschen Landwirte," G.m.b.H., in Berlin, and must be held at their disposal. Prices vary between m.24 and m.25 per 100 kilos. for 38 to 42 per cent., and m.22 and m.23 for 30 to 34 per cent.

CAMPHOR.—Refined is becoming scarce. German is quoted at m.775 and Japanese at m.725. The commandeering of powdered camphor has just been revoked.

CARBOLIC ACID has again advanced in consequence of increased demand and scarcity of raw materials. The prices are: m.22 for 20 to 25 per cent.; m.32 for 50 to 60 per cent.; m.68 for 95 to 100 per cent. (dark); m.78 for 95 to 100 per cent. (light).

CARBON DISULPHIDE is higher in consequence of the advanced prices of raw material; from m.95 to m.100 per 100 kilos. is quoted.

CASSIA-BARK.—Stocks of selected have become very scarce, and the demand increasingly active. Prices have much advanced already, and are expected to advance further; extra selected is m.230 to m.235 and selected from m.220 to m.225.

CASSIA-FLOWERS are active at higher rates; from m.220 to m.225 per 100 kilos. is asked, duty paid.

CASTOR OIL is in extraordinarily active demand. Importation is quite impossible and the stocks very small. First-pressing is quoted at m.385 per 100 kilos. in barrels, and second-pressing at m.360.

CERESIN.—Raw material has much advanced in price in consequence of extreme scarcity; importation has come to a full stop. White costs from m.200 to m.250 per 100 kilos., and orange from m.170 to m.200, according to quality and quantity; further advance is expected.

CEVADILLA is firm; demand large and stocks small, with prices showing an advancing tendency; m.175 per 100 kilos. is quoted, and m.200 for powdered.

CHAMOMILES.—Roman are cheaper at m.120 per 100 kilos., and m.115 by 500 kilos. lots.

CINNAMON.—Finest and fine qualities of Ceylon have been unobtainable for some time past, and now cheaper sorts are almost cleared. Small quantities, which are still to be had, are offered at extremely high prices, and the stocks will soon be quite exhausted.

CITRIC ACID is easier, this being partly due to the falling-off in demand and partly to speculation. Prices are m.10 per kilo. for prompt delivery and m.9.75 for forward.

COD-LIVER OIL.—Non-congealing medicinal oil is higher again, and large quantities have been sold. It is offered in Hamburg at m.225 per 100 kilos. for prompt delivery. According to a Berlin market-report the Norwegian quotation is m.350 per 100 kilos.

COLOPHONY.—Stocks are nearly cleared. Only small quantities are offered at high prices from second-hands—viz., from m.170 to m.180 per 100 kilos. for middling qualities.

ERGOT has met with a ready sale of late; m.6.50 per kilo. is asked for Russian and m.6.75 for Spanish. Now and then inland ergot is offered and readily sold at lower prices.

HYDROCHLORIC ACID.—Crude is much higher for all qualities. Makers ask from m.8 to m.10 per 100 kilos., without packages.

HYDROQUINONE.—In consequence of high prices for the raw material and the extremely large demand, makers have advanced prices to from m.8.50 to m.9 per kilo., according to quantity.

IPECACUANHA is very firm at from m.39 to m.40 for Cartagena and from m.42 to m.44 per kilo. for Rio.

KOLA is offered in rather large quantities at from m.115 to m.120 per 100 kilos., being cheaper.

LINSEED OIL.—The prospects have become more favourable, as the prohibition of exportation of linseed, linseed oil, rape-seed, and rape-seed oil from Roumania has been revoked, and the American crop will probably exceed that of last year by 60,000 tons of seed. Moreover, the considerable remainder of the Argentine crop has been reserved exclusively for Europe. In Germany only such quantities of linseed oil are bought as are required for immediate use; the price of the crude oil is from m.207 to m.210 per 100 kilos.

LYCOPodium is cheaper, and the demand increased; from m.6.20 to m.6.25 per kilo. in barrels and from m.6.30 to m.6.35 in cases has been paid. *Lycopodium-substitute* is also lower at from m.185 to m.190 per 100 kilos.

MASTICH has been sold at m.8.50 per kilo.

OIL-SEEDS.—Hemp, flax, rape, and poppy seeds have been commandeered by the Government. Only quantities not exceeding 500 kilos. of linseed can be sold. Prices that have been asked of late are from m.110 to m.120 for hemp, from m.120 to m.140 for lin, from m.115 to m.125 for rape, and from m.120 to m.136 for poppy.

QUILLARIA is cheaper, whole offering at from m.165 to m.170 and cut at from m.175 to m.180; demand is only small.

SANDARAC.—Finest is quoted at from m.208 to m.218, fair middling m.155 to m.165, and ordinary m.135.

SAPONIN has been sold at from m.25 to m.30 per kilo., according to purity.

SHELLAC has been very active; Orange TN is m.250 to m.255, G.A.L. m.235 to m.240, and AC Garnet at from m.275 to m.280. Lemony is not obtainable below m.300, and some owners ask m.320 already. Prices are expected to advance further, as there are no imports.

SPIRIT PREPS. have all been advanced. *Colloidion* by m.10 per 100 kilos., ethyl acetate by m.30, liquor Dzondii by m.15 per 100 kilos.

TARTARIC ACID is easier at m.7.50 per kilo.

THYMOL is still to be had at m.65 per kilo., but the makers intend to advance prices.

VANILLIN is only obtainable from second-hands at present, and m.105 per kilo. has to be paid.

WAXES.—Carnauba, fatty grey, has been sold at from m.570 to m.575 per 100 kilos., and yellow sorts have also advanced to m.600. Japanese is very firm, with very small stocks, and m.260 per 100 kilos. has been paid. Montan is quoted at from m.180 to m.185 per 100 kilos.

WORMSEED.—Monopoly seed is offered *via* neutral countries, and is a little cheaper at m.475 per 100 kilos.

ZINC OXIDE.—Crude has again advanced to m.94 white seal, m.89 green seal, m.83 red seal, m.81 blue seal, m.80 grey seal (light).

GERMAN POTASH SYNDICATE.—The sales in July were valued at 278,9007., or 318,0007. less than in July 1914; the turnover for the first seven months of 1915 amounted in value to 3,209,0007., or 2,601,0007. less than the corresponding period of 1914.

Arrivals of Chemicals, Drugs, etc.

During the period September 8 to 15, inclusive, the following produce from the places mentioned in parentheses has arrived at the English ports stated. Goods in transit are not included. The figures denote packages where not specifically described:

To London.

Acetic acid (Rotterdam) cks. 22, blns. 140, (N. York) brls. 77
Acetic anhydride (Treport) chys. 5
Acetone (N. York) dms. 64, (Philadel.) 480
Acetone oil (N. York) dms. 2, (Philadel.) dms. 122
Agar-agar (Japan) 127, (Philadel.) cs. 24
Albumen (N. York) cs. 67, (Shanghai) 76, (Bombay) 5, (Hankow) 6
Alcohol, wood (N. York) dms. 60, (Philadel.) dms. 310
Aloes (Cape ports) cs. 41
Aniline (Treport) dms. 10
Annatto-seed (Batavia) 58
Antimony ore (H.-Kong) bgs. 146
Arachis oil (Bordeaux) cks. 118, (Kobe) 55, (Marseilles) cks. 1,181, cs. 20, (Rotterdam) 820
Argol (Oporto) bgs. 160, (Barcelona) pks. 126
Arsenic (Oporto) brls. 63
Barium chlorate (Treport) cks. 20
Barium nitrate (N. York) kgs. 90
Barytes (Baltimore) brls. 98
Bleaching-powder (N. York) dms. 1,500, (Philadel.) dms. 500
Bromides, pot. and soda (N. York) cs. 26, (Boston) cs. 100
Calcium carbide (Gothenburg) dms. 1,000
Calcium chlor. (N. York) dms. 184
Camphor, cr. (Koolang) cs. 640
Camphor, ref. (Japan) cs. 190
Canary-seed (Amsterdam) 40, (Cadiz) 450
Capsicums (Bombay) bdls. 247, pks. 46
Caraway-seed (Rotterdam) 200
Cardamoms (Colombo) 25, (Bombay) 37, (Tuticorin) 21
Casein (Bombay) 58, (Bordeaux) 276
Cashew-nuts (Bombay) 81
Cassia bark (Amsterdam) bkts. 17
Cellulose acetate (Treport) cks. 23
Cevadilla (Havre) bls. 11
Chemicals, medicines, perfumery, etc. (N. York) pks. 486
Chemical prod. (N. York) pks. 192, (Boulogne) cs. 16, (Paris) cks. 5, cs. 10
Chillies (Bombay) 68, (Mombasa) 42
Chiretta (Calcutta) 54
Cinchona (Amsterdam) bls. 465
Cinnamon (Singapore) bls. 120, (Ceylon) 452
Cinnamon-leaf oil (Galle) cs. 2, (Colombo) 20
Citric acid (N. York) cks. 100
Citronella oil (Rangoon) crts. 15, (Galle) dms. 56
Cloves (Bombay) pks. 57, bgs. 462, bdls. 166
Cochineal (L. Palmas) 37, (Marseilles) 7
Coconut oil (Colombo) pks. 492, pns. 9, hds. 10, (Galle) cks. 197
Cod oil (Bergen) brls. 110, cs. 205
Cod-liver oil (Rotterdam) cs. 100, (Malta) brls. 40, ½ brls. 20
Cresote salts (Rotterdam) cks. 214
Croton-seed (Bombay) pks. 35
Cubebs (Singapore) 35
Cumin-seed (Malta) 20
Dextrin (Rotterdam) bgs. 100

Drugs (Baltimore) cs. 50, (Boulogne) cs. 13, (Paris) pks. 14, (Philadel.) pks. 127, (Montreal) pks. 44; medicines (Boston) cs. 20
Dyes (Amsterdam) cks. 150
Epsom salt (Melbourne) bgs. 567, (N. York) brls. 455
Essential oils (Valencia) dms. 2, (Marseilles) cks. 3, (Amsterdam) tins 5, (Batavia) dms. 10, (Malaga) cs. 11, dm. 1
Ethyl chloride (Havre) cs. 5
Eucalyptus oil (Brisbane) cs. 22
Fig syrup (Philadel.) cs. 2,700
Formaldehyde (N. York) brls. 158, (Philadel.) brls. 64
Galls (Shanghai) cs. 170
Gelatin (Paris) bls. 34
Ginger (H.-Kong) cks. 220, (Singapore) 100, (Bombay) bdls. 400, bgs. 471
Glucose (N. York) 600
Glycerin (Rotterdam) dms. 33
Gum acacia (Bombay) bgs. 518, (P. Sudan) bgs. 407
Gum copal (Singapore) pks. 341, (Mombasa) 134
Gum damar (Singapore) pags. 1,764
Gum kauri (Auckland) cs. 228, sks. 9
Gums, undescribed (Bombay) cs. 180, bgs. 338, (Bordeaux) bls. 20, sks. 50
Herbs (St. Nazaire) bls. 52
Honey (Bordeaux) cks. 68
Hydrogen perox. (Treport) chys. 40
Indigo (Calcutta) cs. 81, (Bombay) 22, (Madras) 12
Kola (Lagos) 24
Lavender oil (Cartagena) dms. 2
Lead acetate (N. York) 40
Lime-juice (N. York) pns. 145, dms. 55
Linseed (B. Ayres) tons 556, (Calcutta) bgs. 16,928, (Bombay) 11,865
Licquorice-juice (N. York) cs. 79
Lithopone (Rotterdam) 70
Magnes. carb. (Amsterdam) cks. 6, (Philadel.) 40
Magnesite (Amsterdam) bgs. 50
Menthhol (Japan) cs. 10
Milk-sugar (N. York) brls. 240, (Amsterdam) cs. 60
Mineral waters (Trenort) 600
Mineral white (Genoa) 100
Mint oil (Japan) cs. 80
Mustard oil (Calcutta) cs. 12
Olibanum (Bombay) cs. 380
Olive oil (Seville) brls. 16, cs. 142, (Bordeaux) cs. 15, (Malaga) brls. 31, (Leghorn) pks. 105, (Genoa) cks. 20
Opium (Bombay) cs. 61, (Calcutta) 15
Orange oil (Nantes) cs. 12
Palm-kernels (Lagos) bgs. 25,893
Pepper (Alexandria) bgs. 594, (Singapore) 169, (Bangkok) 751
Perfumery (N. York) cs. 42, (Boulogne) cs. 12
Petrolatum (U.S.A.) 65
Quicksilver (H.-Kong) bott. 150, (Leghorn) 250
Quinine (N. York) cs. 29, (Amsterdam) cs. 121
Rhubarb (Shanghai) cs. 50, (Bombay) 5
Rosin (Seville) brls. 30
Saltpetre (Calcutta) bgs. 5,675
Sandalwood (Bombay) bdls. 429
Seedlac (Calcutta) 51
Senega (Philadel.) bls. 10
Senna (P. Said) bls. 19, (Tuticorin) bls. 756, (Bombay) pks. 465, (P. Sudan) pks. 112
Shellac (Calcutta) 622, bgs. 18, button 50

Soda hyposulph. (N. York) kgs. 75, brls. 192
Soda peroxide (Havre) crts. 20
Soda silicate (Philadel.) brls. 167
Sodium metal (Genoa) cs. 300
Soya-bean oil (Japan) cs. 500
Sulphur (Barcelona) bgs. 1,003
Tamarinds (Calcutta) pks. 61
Tannic acid (N. York) brls. 50
Tartar (Lisbon) pks. 162, (Barcelona) 42
Turmeric (Singapore) 250, (Bombay) 1,225, (Calcutta) 200
Turpentine (Pasages) brls. 1,000
Urea (Gothenburg) cs. 40
Vanilla (Colombo) pks. 5
Verdigris (Bordeaux) cks. 4
Wax, bees' (Bilbao) cs. 10, (Lisbon) 21, (N. York) bgs. 202, (Calcutta) cs. 64, bgs. 20, (Bombay) cs. 61, (Marseilles) bdls. 14, bgs. 137, (Mombasa) 13, (P. Sudan) 864, (St. Nazaire) cs. 17
Wax, veget. (Alexandria) cs. 100
Zinc oxide (Baltimore) 160, (N. York) 1,800, (Rotterdam) 50
To Liverpool.
Alumina sulph. (N. York) bgs. 280
Arachis oil (Marseilles) cks. 853
Barytes sulph. (Marseilles) pks. 49
Castor oil (Calcutta) cs. 400
Chemical prod. (N. York) pks. 53
Cream of tartar (Tarragona) brls. 19
Dill-seed (Bombay) 206
Drugs, etc. (N. York) cs. 14
Glycerin (Barcelona) dms. 150, (Marseilles) dms. 556
Gums, undescribed (W.C. Africa) brls. 205

Honey (Bordeaux) cks. 26
Linseed (Calcutta) bgs. 1,365
Lithopone (Rotterdam) cks. 60
Mineral waters (Marseilles) pks. 2,177
Olive oil (Bordeaux) cs. 139, (Bombay) cs. 112, (Malaga) cs. 415, brls. 458, cs. 8, (Marseilles) pks. 355, cks. 1,416
Orange-peel (Malaga) bls. 46
Palm-kernels (W.C. Africa) bgs. 28,777
Palm oil (W.C. Africa) cks. 2,754
Quicksilver (Barcelona) bott. 4
Rosin (Bordeaux) cks. 1,177
Saltpetre (Calcutta) bgs. 1,514
Soda nitrate (Tocapilla) bgs. 35,935
Tartar (Marseilles) bgs. 170
Wax, bees' (W.C. Africa) 18
Zinc oxide (Rotterdam) cks. 60
To Manchester.
Acetate of lime (N. York) bgs. 350
Acetic acid (Philadel.) brls. 196, (N. York) brls. 76
Caraway-seed (Rotterdam) bls. 70
Citric acid (N. York) kgs. 60, cks. 12
Cream of tartar (N. York) cks. 24
Dextrin (U.S.A.) bgs. 655
Formaldehyde (N. York) cks. 12
Glucose (N. York) brls. 2,306
Lactic acid (Philadel.) brls. 111
Sassafras-bark (N. York) bgs. 18
Soda caustic (Philadel.) dms. 368
Soda hyposulph. (N. York) brls. 60
Soda perborate (N. York) brls. 40
Tartar emetic (N. York) pks. 35
50; glucose (N. York) brls. 357; linseed (B. Ayres) cwt. 23,200. *To Folkestone.*—Chemical prod. (France) pks. 17; drugs (France) pks. 22; farina (France) 374; perfumery (France) pks. 43; perfumed spirits (Boulogne) cs. 7. *To Grimsby.*—Chemical prod. (Dieppe) cks. 30; dyes (Dieppe) brls. 237. *To Harwich.*—Cocoa-butter (Rotterdam) bgs. 360. *To Hull.*—Acetic acid (Rotterdam) chys. 10; boric acid (N. York) brls. 250; castor-seed (Bombay) bgs. 33,957; chemical prod. (N. York) brls. 455, cs. 8; farina (Rotterdam) 85; formaldehyde (N. York) brls. 70; formic acid (Rotterdam) chys. 90, blns. 84; glucose (N. York) brls. 626, (Boston) 300; glycerin (Amsterdam) dms. 157; linseed (Rosario) bgs. 55,953, (Bombay) 6,261; magnes. carb. (Amsterdam) 200; olive oil (Copenhagen) brls. 20; potash caustic (N. York) dms. 32; rape-seed (Bombay) 2,408; soda phosphate (N. York) dms. 114; sulphuric acid (Amsterdam) 50; zinc oxide (N. York) 600. *To Southampton.*—Capsicums cs. 19; herbs bls. 21; wax, bees' pks. 18 (all from St. Malo).

Dearer Containers.

The question of packages in the chemical and drug trades has become acute of late, so much so that there is a great scarcity of bottles, jars, carboys, and the like, and chemical-manufacturers have now enhanced the charges so much as to add materially to the cost of the articles. *This factor should not be overlooked by retail buyers.* The following statement has been issued by Hopkin & Williams, Ltd., Howards & Sons, Ltd., May & Baker, Ltd., T. Morson & Son, T. Tyrer & Co., Ltd., and Whiffen & Sons, Ltd.:

The following extra charges will be made on goods when put up in packages smaller than bulk:

Liquids Priced at less than 1s. per lb. net.—Carboys will be regarded as the bulk package. An extra charge will be made of ¼d. per lb. if packed in Winchester, and ½d. per lb. in smaller packages, above the bulk price.

Liquids Priced at from 1s. per lb. to 10s. per lb.—Winchesters will be regarded as the bulk package; for smaller bottles the following charges will be made on the goods:

In 1-lb. bottles	...	1d. per lb. extra.
In ½-lb. bottles	...	2d. per lb. extra.
In ¼-lb. bottles	...	3d. per lb. extra.

Solids Priced at under 5s. per lb.—The following charges will be made on the goods:—

In 1-lb. bottles	...	1d. per lb. extra.
In ½-lb. bottles	...	1½d. per lb. extra.
In ¼-lb. bottles	...	2d. per lb. extra.

Jars and Earthenware Bottles.—Goods (both solids and liquids) priced at less than 1s. per lb. net, if packed in jars or earthenware bottles, will be charged at ¼d. per lb. more than if packed in 5-cwt. casks or carboys.

All goods invoiced at under 1s. per lb. will be put up in parcels at the following rates: 1 lb., 9s. 4d. per cwt. extra; 2 lb., 7s.; 7 lb., 1s.; 14 lb., 8d.

Russian News.

OZOKERITE REFINING.—A Warsaw firm that sold its crude earth-wax from the fields in the neighbourhood of the Caspian Sea to Austria and Germany, from whence the refined product was sent to England and other countries, is now founding a refinery and manufactory in Russia. The ozokerite obtained is hard and pure, it has a dark-green colour, the melting-point is from 79° to 80° C., and it is free from asphalt.

COPPER SULPHATE.—During 1914 the imports of sulphate of copper into Batoum amounted to 1,761 tons, against 1,160 tons in 1913, or 601 tons more. About 4,000 tons is annually imported into Russia, the bulk of which, as a rule, comes from the United Kingdom, although Germany to a much lesser extent was also occupied in furnishing the commodity to the Caucasian agricultural classes. During the past winter no supplies of sulphate of copper reached the Caucasus from either the United Kingdom or Germany, and stocks became exhausted. The article is, therefore, much required now, and would fetch high prices provided delivery can be secured before the spraying season.

Trade with Russia.

WRITING from Petrograd on August 19 (September 1) Mr. D. A. Ruffman says: My whole time seems to be devoted at present to the receiving and sending of telegrams to and from England and Switzerland; these telegrams pertain to the buying and selling of chemical and pharmaceutical preparations. Without attempting to analyse as to the profits and losses gained and sustained by buyer and seller, it is certain that the telegraph office and myself, as agent, are making money. At first sight it looks beautiful. Money is made easily, without trouble or worry; but when you come to look at this business from the buyer's point of view things do not look so bright. It is our Government and the nation that have to pay fabulous prices for the drugs with which we must heal our wounded, and these wounded are fighting for the manufacturers and myself who are making money in such an easy way. Thymol, the price of which was 16s. per kilo. before the war, is now 26s. per lb.; for atropine we pay now 3,000f. per kilo.; for veronal I have just paid 100f., for argent. colloïd. 160f. per kilo., for quinin. hydrochlor. 1s. 11½d. per oz., for morphine 15s. per oz., codeine 24s. per oz., carbolic acid 2s. 2d. per lb., croton oil 3s. 9d. per lb., chaulmoogra oil 3s. 5d. per lb., salol 12s. 6d. per lb., salicylic acid 10s. per lb., acid. acetylsalicyl. 38s. 10d. per lb., pot. brom. 5s. 3d. per lb., and so on. These are prices paid by the wholesaler in Russia to the manufacturers in England and Switzerland, and you can imagine what the price comes to when the goods reach the sick man, who has to bear the brunt of the carriage from England to Russia, the duty and insurance, the profit of the wholesaler and retailer! Everybody tries to make a fortune as quickly as possible. Our poor soldiers are the only human beings who seem to have something else in their minds.

While I fully believe that raw materials, labour, fuel, etc., are more expensive, I cannot believe that the prices at which chemicals are offered from abroad at present are fair. I have proof of it. On one and the same day I get wires from two different London houses: one firm offers stront. brom. at 15s. 6d. per kilo. and fol. scann. Tinevely at 2s. 6d. per kilo., and the other at 12s. 6d. and 9½d. per kilo. respectively. Both firms are of the very best standing. Lanoline of a nasty tobacco-like colour, more fit for greasing the wheels of the chariot on which I would like to see the diplomats of the world being led to prison for not having foreseen the present trouble, than for making up ointments, comes from England at 2s. 6d. per lb. from one manufacturer, while the white-looking article answering the B.P. test at 1s. 6d. per lb. from another maker. Not contenting themselves with these prices, the manufacturers demand that payment should be made in London before the goods are despatched. Our Russian wholesalers agree to these terms without a murmur, and it often happens that, after they have parted with thousands of pounds sterling in cash as advance payment for goods, the London manufacturer tells us that the British Government does not allow the article to be shipped. So the buyers have to be without their money for two or three months to find out this piece of news. These wholesalers, who are worth millions of roubles in cash and property, and who enjoyed many millions of credit, both in Europe and elsewhere, before the war, have now become so modest in speech and so reserved in attitude that one cannot help feeling sorry for them. When calling at their office with a telegram in hand, and just before you have time to tell them what our

friends in England have got to offer, they merely ask you, "How much money have we to remit to your manufacturers?" For the moment they do not want to know anything further. This question on their part has become automatic.

I do not want you to think for one moment that their financial or moral standing has changed in any shape or manner compared with what it was before the war. On the contrary, if anything, their financial position has become still stronger. It is the attitude of the manufacturer and exporter in England that has turned from bad to worse. You know exactly what the average business man in England thought of us before the war. While he distrusted the Russian buyer, his American cousin did the actual business by opening branches and agencies all over Russia. If distrust existed before the war, it is only natural that you should demand "cash on the table" and dictate terms during the war. While official England and Russia and their fighting sons are now constituting one conglomeration of stubborn resistance against the common enemy, the attitude of the British manufacturer and exporter towards the Russian importer remains the same as before the war, if not worse. To this we must add the unwillingness of the Englishman to offer to us in metric weights and measures instead of hundredweights, quarters, pounds, ounces, pints, and gallons, and you will readily perceive what the feelings of our business people are.

I am not exaggerating when I state that by the above methods of working, and for many other reasons, British firms have not been able to conquer the heart of the Russian buyer. If this is the case at this moment, when every opportunity is at the disposal of the English business man to take up all the business ties which existed between us and Germany for so many years, and which were so abruptly cut, I do not see how matters can be remedied in favour of increase of business between Russia and England after the war. Now, and only now, is the time to take measures by means of which Russians should be convinced of the advantages of trading with England. Unless these measures are adopted and carried into practical business life at once, *we shall be compelled to trade with our enemy again as soon as the war is over.* To build one's business future on the strength of friendship or hatred between nations is something too small as an asset. When you cheer our troops, our successes, our artists, or when you sympathise with our misfortunes, it is beautiful and glorious; but this is not enough to induce our business men to accept your dictatorial terms. Perhaps you will say that in future commercial treaties will be framed so as to shut out German business from our country. But we must not forget that treaties are negotiated and concluded by the same kind of diplomats who were utterly in the dark as to what Germany and Austria intended doing within the next twenty-four hours. Of this we must all think now. We must not leave the work of capturing markets until the war is over. We must do it at once, but we must go to work with tools different from those which you are using now. Your tools will turn into weapons against your own interests. There must be less cheering and booming, and more serious thinking. There must be less listening to what new-baked English correspondents write from here, and more adhering to live facts of how business was done here by our enemies. There must be less creations of all sorts of Anglo-Russian and Russian-English commercial institutions, schools, lectures, etc., with red tape and academic men at the head of same, and more of the actual business men coming over to Russia and studying matters for themselves with the end-view of finding out what should be done in order to capture the Russian market and hold it permanently.

Gazette.

Partnership Dissolved.

ATHILL-CRUTTWELL, H., and CASTELLAIN, J. G., Bagshot, medical practitioners, under the style of Cruttwell & Castellain.

Bankruptcy Acts.

RECEIVING ORDER AND ADJUDICATION.

MANSON, W. J., Ruskin Lodge, Commercial Road, Parkstone, Dorset, mineral-water and botanic-beer manufacturer, under the style of The Poole Botanic Brewery.

ADJUDICATION.

ASTON, W., 16 Bennett's Hill, Birmingham, and Corbett House, Droitwich, surgeon.

German News.

SACCHARIN TRADE.—From various quarters requests have been sent to the Government regarding the scarcity of sugar in Germany, asking for a temporary abrogation of the limitation to which the sale of saccharin is at present subjected.

LINT is to be made in the Berlin schools by request of the military medical authorities. The hope is expressed that by teaching children lint-making will become a home industry, and that the army medical service will in this way be provided with a large quantity of wound-dressing material.

DR. ADOLF WINDAUS, the ordinary professor of applied medical chemistry of the Innsbruck University, has been nominated successor of Professor Wallach as director of the Chemical Institute of Göttingen. Professor Windaus was born in Berlin, and has only been at Innsbruck for eighteen months.

OIL FROM INDIGENOUS FRUITS.—The "Kölnische Zeitung" now admits "an unpleasant scarcity of vegetable fats and oils is beginning to be felt" in Germany, and remarks: "To-day, when it is a question of husbanding all resources, all land and garden owners are requested to devote more attention to oil-yielding fruits" (see *C. & D.*, September 4, p. 48).

CHEMIST REQUIED. An advertisement appeared in a Swiss paper for a German or Swiss chemist to make in France aspirin, antipyrin, salicylic acid, phenacetin, pyramidon, guaiacol, yeronal, lycothol, protargol, salophen, and urotropin. The "Kölnische Zeitung" has become excited about it, and assumes that only German chemists can make these things.

THE SYNDICATE OF GERMAN PERFUMERY MANUFACTURERS met at Berlin on August 28, when rather doleful reports were submitted about the toilet-soap trade, which is very bad owing to the Government demands for fat and diminished imports having sent prices up enormously. It also seems that German users of perfumes still get English and French makes through neutral markets, this not being forbidden by the Government. The Syndicate does not like this.

A NUTRITIVE PILL for German soldiers was devised about the time the war broke out, and the German Government subsidised, to the extent of several million marks, a company with a factory at Neuss, near Cologne, for making the pills. The company has just come to grief, the nutritive element extracted from vegetables by a chemical process not having provided in pill-form enough to satisfy men in the trenches. A later report is to the effect that the German army is to have a twenty-four hours' trial of a nutritive tablet.

SUBSTITUTES.—It is reported from Amsterdam that in the search for substitutes for articles that are scarce the Federal Council has authorised woodruff to be used by tobacco-manufacturers in place of valerian. From New York comes a report in regard to the inferior chocolate which was supplied by a company for women to send to their friends in the trenches. The chocolate was made chiefly of cocoa-husks, and the police suppressed the manufacture. Now it appears the police have to deal with alcoholic tablets which are supplied for a similar purpose. They look like gelatin pastilles, but contain a large percentage of brandy or other alcoholic liquor.

PETROLEUM PRICES. The maximum retail price that has been fixed for petroleum in Germany is so low that many dealers have bought their stocks at higher prices than the maximum price at which they are now allowed to sell it. The Imperial Chancellor has promised that exceptional regulations will be made in these cases. The official maximum price for petroleum also injures the trade in by-products, especially in that of turpentine substitutes. The association of lac- and dye-manufacturers has already applied to the authorities for temporary regulations in regard to this matter, as even before the war the price of turpentine substitute was higher than the actual maximum price of 30m. It is asked that the price be fixed at from 120m. to 80m.

HEINRICH BECKURTS.—The "Apoth. Ztg." of August 21 devoted an article to Heinrich Beckurts, professor of pharmaceutical chemistry of the Technical Academy in Brunswick, who celebrated his sixtieth birthday on August 23. Professor Beckurts was born in Brunswick. In 1876 he obtained the doctor's degree in the Jena University. In 1886 he was appointed professor of pharmaceutical chemistry, and later on also in pharmacognosy and chemistry of foodstuffs in Brunswick, after having been assistant in

the chemical-pharmaceutical laboratories in Griefswald and Brunswick from 1877 till 1879, and chemist in a magnesium-carbonate manufactory in Nauheim in 1880 and 1881.

India and the East.

(From the "C. & D." Correspondents.)

"EX SHIP."—The Committee of the Bengal Chamber of Commerce, having been asked for their opinion as to the recognised interpretation of the term "ex ship," said they were not prepared to go further than to say that the term means that the goods must be put over the ship's side. As to whether any additional significance attaches to it in the case of particular goods would depend, they thought, on the conditions of the contract between buyer and seller.

ANILINE DYES IN JAPAN.—An Act has been passed by both Houses of Parliament in Japan subsidising companies that are formed to manufacture in the Empire aniline and alizarine dyes and synthetic indigo. The subsidy is to enable the companies to pay 8 per cent. dividend annually for ten years on their paid-up capital. The subsidy extends to synthetic chemicals for medicinal purposes and to synthetic perfumes which are manufactured from the by-products of the manufactures or from coal-tar distillation.

TURPENTINE AND RESIN.—In a "Review of Forest Administration in British India during the five years ended June 30, 1914, by the Department of Revenue and Agriculture," it is stated that marked progress has been made in the manufacture of resin and turpentine from crude resin obtained by tapping pine-trees in the Himalayan forests. In the Punjab and the United Provinces new distilleries have been erected, and in 1913-14 these turned out 27,429 maunds of resin and 58,803 gals. of turpentine, compared with 6,584 maunds of resin and 14,604 gals. of turpentine ten years earlier. The Indian demand for these products is considerable, and the local output has already affected imports from other countries. In the Punjab a modern plant has been erected near Lahore, and a large increase in the output is also expected in the United Provinces.

GERMAN DYES IN CHINA.—Before the war China was an important consumer of German dyes, her average imports being about one-third those of Great Britain. Some interesting particulars of recent developments are given in a German consular report from Tientsin, just published in Berlin. Since the beginning of 1915, it is stated, imports of German dyestuffs into China have ceased, and prices have gone up very considerably. Last May the increases, as compared with pre-war prices, generally ranged from 50 to 200 per cent., some being much more. Since then prices have advanced still further. Attracted by the high quotations abroad, many Chinese dealers have disposed of their stocks, chiefly, it is said, to Japanese dealers, though some have been destined for England. The German representatives have done all they possibly could to prevent this taking place, pointing out that if the war continues there will be a colour famine in China, the arrival of further supplies of German dyestuffs being very improbable indeed before the end of the war. The local authorities are encouraging the cultivation of natural indigo.

GERMAN SLIMNESS IN CHINA.—The "North China Daily News" has brought to light some interesting revelations of the efforts Germany is making to oust British chemicals and drugs from China. German makers of chemicals are using "B.P." labels for any rubbish which they care to unload on the native market, and so discredit British makers. As an instance, at a China coast port recently there arrived a supply of santonin labelled "Santonine B.P." a drug in great demand among the Chinese. It was supplied by an alien enemy in Shanghai somewhat under the London current price of about 180s. per lb., and upon examination it was proved to have been largely adulterated with acetanilide. It is in this way that drugs of inferior quality are being disposed of under the British label by agents scattered throughout the interior of China. Native druggists are making interesting comment on the fact that the Germans continue to get fairly adequate supplies of drugs, and the Germans themselves are making as much capital out of this as possible. Direct supplies have been cut off, but they are obtained indirectly. One German firm of chemical manufacturers has resorted to the expedient of procuring stocks of drugs and chemicals bearing the labels of a neutral country, and the goods were actually shipped to Shanghai in British vessels. Upon their arrival the original labels and capsules were removed and the articles relabelled and recapsuled with those of the German home manufacturer. The agents are well supplied with material for the purpose, doubtless with the object of keeping the brand before the Chinese during the war.

Australasian News.

"The Chemist and Druggist" is supplied weekly to all the members of eight Chemists' Societies in Australia and New Zealand.

The Commonwealth.

EPSOM SALT is now being made in Melbourne, Sydney, and Adelaide in large quantities.

PROHIBITION OF ELECTRIC BELTS.—A Proclamation in the "Gazette" of July 24 prohibits the importation into the Commonwealth of electric or magnetic belts, or any belt which is alleged or intended to produce a therapeutic effect by electric or magnetic influences.

JAPANESE CHEMICAL APPARATUS is now being imported into Australia which compares favourably with that previously coming from Germany. Feeding-bottles, glass measures, microscope slides, indiarubber tubing, and microscopes are among the goods which are being supplied from Japan.

PERRY DAVIS'S PAIN-KILLER.—In view of the operations of the Poisons Acts the 2 gr. of opium in each ounce of pain-killer has now been omitted. Stocks arriving have been found by the Commonwealth Government analyst to be free from any ingredient which needs to be declared under the Commerce Act. The bottles now being received have on their labels a declaration of the presence of ethyl alcohol, but no other drug is mentioned.

New South Wales.

ARMY SURGEONS.—The Medical Practitioners Act is to be amended so as to permit students in their third year to be registered as Army surgeons, and thus exempted from passing in more or less technical subjects, such as medical jurisprudence.

TRADING WITH THE ENEMY.—At the Central Police Court, Sydney, on July 23, George Arnold, drug importer, was fined 200/., with 10/ 10s. costs, in default twelve months' hard labour, for attempting to trade with the enemy. Defendant ordered chemicals from Meister, Lucius & Brünig, Leverkusen, through a Mr. Moller in New York.

PHARMACEUTICAL SOCIETY.—A meeting of Council was held on July 13. Mr. Gray reported that he had arranged with the Chamber of Commerce for an exhibit of drugs and medicinal preparations and instruments of enemy origin at the forthcoming trade fair organised by the Chamber of Commerce. He had been able, he said, to get together a good range of specimens, and thought the exhibit would be a credit to the Society. A letter was received from the Chief Collector of Customs, dated June 29, stating that applications for extra supply of opium may be sent to him direct instead of through the importers. A letter was received from the Defence Department of the Commonwealth as to the rank held by the dispenser at the Victoria Barracks permanent A.M.C. at the Garrison Hospital, who, being a registered pharmacist, the Council considered should be granted honorary commissioned rank. The letter stated that no provision is made in the permanent medical services for pharmacists only, but such qualification is taken into consideration in making appointments. In the citizen forces pharmacists are given rank from sergeant upwards, with one as honorary lieutenant in each large field hospital. It was reported that a new award had been made under the Wages Board for six months, the only change being a clause which provides that the wages paid to male assistants of twenty-one years of age and over shall not be less than 2/ 8s. per week.

Italian News.

BUSINESS CHANGE.—The Fabbrica Chimica Arenella Soc. An., of Palermo, inform us that letters of procuration have been granted to Mr. Giovanni Eduardo Priolo and Mr. Roberto Incorpora.

MERCURY PERCHLORIDE is the favourite poison for suicidal purposes in Italy. Despite all the restrictions placed upon its sale by the State, two-fifths of the deaths from poisoning were due to corrosive sublimate in 1914.

WAR NOTES.—Washing the hands with petrol before dressing or aiding in dressing the wounded is recommended when no other antiseptic is at hand.—Sterilisation of water is done in the Italian field army by adding to each litre of water calcium hypochlorite 0.015 gram and common salt 0.08 gram, this giving a chlorine yield of from 0.003 to 0.0035 per litre.

INDUSTRIAL ANALYTICAL CHEMISTS have sent a manifesto to the War Office asking for equal recognition and status

with pharmacists, veterinary surgeons, and doctors—viz., to rank as lieutenant when in the army service. The War Office adopts a wait-and-see attitude, promising some such position as desired in the Sanitary Chemical Section of the R.A.M.C. as vacancies occur, meantime advising the undertaking of service in whatever is at hand.

MARKET PRICES.—The following were some of the whole-sale prices current in Italy at the end of August, the figures being lire (25=1/.) per kilo.: Acetylsalicylic acid, 80 (continually rising); benzoic acid, 16; citric acid, 12; carbolic-acid cryst., 22 (scarce and rising); salicylic acid, 40 (rising); tartaric acid, 6.80; balsam Peru, 75; bismuth salicylate, 75; subgallate, 60; subnitrate, 50; bromides, ammonium, 50; potassium and sodium, 40 (a new advance predicted); chloral hydrate, 15; cocaine, 900; codeine, 1,400; cream of tartar, 5.70; wood creosote, 10; diacetylmorphine, 1,400; resublimed iodine, 60; potassium iodide, 55; sodium iodide, 58; iodoform, 70; lycopodium, 18; magnes. carb., 1; corrosive sublimate, 15; calomel, 17; morphine, 800; castor oil, 2 (a declining market); potash chlorate, 4; potash permanganate, 2; santonin, 500 (transport from Russia very difficult); sodium bicarb., 30; sodium salicylate, 42; zinc sulphate, 25. No antipyrin is available.

Trade-Marks.

Objections to the registration of any of the undermentioned applications must be stated on Form T.M. No. 7 (obtainable at Money Order Offices for £1) and lodged with the Registrar of Trade-Marks, Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C. The prescribed time is one month from the date of the Journal in which the application has appeared; but the period may be enlarged by the Registrar, if he thinks fit, and upon such terms as he may direct. Formal opposition should not be lodged until after notice has been given by letter to the applicant for registration, so as to afford him an opportunity of withdrawing his mark before the expense of preparing the notice of opposition is incurred. Failing such notice to the applicant, an opponent may not obtain an order for costs.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration, see "The Chemist and Druggist Diary," 1915, p. 435.

(From the "Trade-marks Journal," September 8, 1915.)

- "PARROT": for goods (8). By Ruffell's Exclusives, Ltd., 8 and 9 Long Acre, London, W.C. 368,362. (Associated.)
- Device of seal with words "SEAL BRAND" and monogram "F. Q." ("Seal Brand" and "F. Q." disclaimed); for scientific instruments, etc. (8), and for spectacle-frames (14). By J. and R. Fleming, Ltd., 135-142 Clerkenwell Road, E.C. 368,605/6.
- Label device, including Leaning Tower of Pisa and words "PURE TUSCAN OLIVE OIL," etc.; for Tuscan olive oil (42). By Tusean Pure Olive Oil Syndicate, Leghorn, Italy. 366,563.
- "PLANTERS' PRIDE," "WELCOME," "BIRCH TREE," "TRACTOR": for goods (42). By Planters Margarine Co., Ltd., 18 West Smithfield, London, E.C. 366,929, 367,292, 368,407 (Associated), 368,413 (Associated).
- "SISOL": for food substances (42). By Lever Bros., Ltd., Port Sunlight. 368,656.
- "SKIPPER": for a beverage (44). By W. Hodgkinson, Ltd., Fleetwood, Lancs. 363,555.
- "ZAK": for finger-nail enamel (48). By the Castle Chemical Co., Ltd., 104 West George Street, Glasgow. 368,781.
- Circular device enclosing word "ADS" and monogram "ADS Co." ("Ads" disclaimed); for perfumery, etc. (48). By the American Drug Supply Co., 6 Northumberland Avenue, W.C. 368,648.
- Picture of windmill; for perfumery, etc. (48). By G. W. Goodwin & Son, Ordsall Lane Soap-works, Manchester. 368,705.
- "JUMPER" over device of sun, moon, and stars; for polishes (50). By T. F. Guthrie & Co., 196 Bishopsgate, London, E.C. 367,624.
- Circular device of Puss in Boots, with words "MADE IN LONDON": for polishes (50). By the Kismet Polish Co., 2 Stanley Road, Acton, W. 368,270.

A GOOD GIFT to anyone connected with pharmacy or the drug-trade is a copy of Wootton's "Chronicles of Pharmacy," published by Macmillan & Co., Ltd., London, in two volumes, at a guinea, and now obtainable from THE CHEMIST AND DRUGGIST office, 42 Cannon Street, London, E.C., at 7s. 6d. carriage paid in the United Kingdom, or 8s. 6d. post free to any part abroad.

Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

Witte's Peptone.—The cessation of the supply of Witte's standard peptone has introduced a difficulty in carrying out the Rideal-Walker test for disinfectants. Dr. Samuel Rideal and Mr. J. T. Ainslie Walker, in a letter to the "British Medical Journal," state that this matter has been taken up by an American Committee representing four prominent laboratories, with Dr. Conn as umpire, and that this Committee is about to report in favour of a brand which is said to be equal to Witte's in every respect. Dr. Rideal and Mr. Ainslie Walker invite discussion of the matter by other workers.

Retarding Action of Sugar in Photographic Developers.—The retarding action of sugar in the development of photographic negatives and the permeability of gelatin to a metol-hydroquinone developer was the subject of a communication by M. J. Maldiney to the Paris Academy of Sciences on July 26. The author found that a plate giving a complete image in five seconds under the influence of the developer alone can be retarded by the addition of sugar, the addition of 60 grams of sugar per 100 c.c. of developer causing a retardation of from three to five minutes. The action appears to be due to physical causes, the increased viscosity of the solution rendering the penetration of the gelatin emulsion slower.

Medical Gleanings.

Garlic-juice as Wound-dressing.

A LOTION consisting of succus allii 1 part, distilled water 4 parts, has been used with success by Dr. Serrell Cooke and Mr. V. Gabriel ("Lancet," II., 1915, 603) as a wound dressing. Used upon suppurating wounds twice daily, a noticeable improvement occurs within twenty-four hours, and a very marked and decided improvement within forty-eight hours. The garlic-juice can be preserved for about a month or six weeks by the addition of 1 to 2 per cent. of alcohol.

Diabetes Investigation.

DURING the last twelve years investigations upon the question of acidosis in diabetes have been in progress at Guy's Hospital, state the authors of a paper in the "British Medical Journal" (II., 1915, 389) entitled "Observations upon Acidosis in Diabetes Mellitus." The chief practical result of the work has been the demonstration that analyses of the carbon dioxide in the alveolar air of the lungs afford an index of the degree of acidosis and a guide in treatment and prognosis. The significance of alveolar carbon-dioxide determinations in the treatment and prognosis of diabetes is dealt with in another paper by Dr. E. P. Poulton, who describes the apparatus used for obtaining and analysing the alveolar air for clinical purposes. The instrument is known as Fridericia's carbon-dioxide tensimeter.

Trench Frost-bite.

DOCTORS J. LORRAIN SMITH, JAS. RITCHIE, AND JAS. DAWSON have just concluded, at Edinburgh, an investigation, undertaken at the request of the Medical Research Committee (National Health Insurance) as to the effects of moderate cold on the feet of soldiers in the trenches. Clinical observations were made of a number of cases under treatment in the military hospitals in Edinburgh, and a study was undertaken of the effect on rabbits' feet of conditions similar to those to which the soldiers were subjected. As a result of the investigations it is recommended that soldiers should practise massage on their feet before going to the trenches and when resting, that the time spent in the trenches should be shortened, and that moleskin leggings should be provided as leg-coverings in place of puttees. The use of vaseline on the feet has advantages, and to maintain the circulation in the feet the clothing on the legs should be increased. Cases where at the end of trench-duty slight symptoms are shown should be investigated by the medical staff, as the tendency is for the symptoms to become more severe on a return to the trenches.



Memoranda for Correspondents.

Communications should be accompanied by the names and addresses of the writers, otherwise they cannot be dealt with. Queries by subscribers on dispensing, legal, and miscellaneous subjects connected with the business are replied to in these columns if they are considered to be of general interest.

Correspondents are requested to write each query on a separate piece of paper. Every endeavour is made to reply to queries without delay, but insertion of the replies in "the next issue" cannot be guaranteed, nor, as a rule, can they be sent by post.

Letters submitted for publication (if suitable) should be written on one side of the paper only. Their publication in "The Chemist and Druggist" does not imply Editorial agreement with the opinions expressed, even when the writers use a "nom de plume."

Complete and systematic indexes of the "C. & D." are presented with the last issues in June and December each year. Every subject dealt with week by week is included, and correspondents are advised to refer to these and the "C. & D. Diary" before asking the Editor for information, so as to save time.

[The 191 Insurance Dispensing Agreements.

SIR.—In your article on Insurance dispensing in current issue a list, taken at random, of some eighteen districts shows that in the majority of instances 100 per cent. has been paid. Is it possible that some of these districts have a balance in hand after paying the full amount of accounts? The contributions are national. Why should not the payments be national also? It seems strange that a pharmacist working in an abnormal district should not be paid for his work at the same rate as others. Is he not employed by the same ultimate authority? If there must be discounting, why not equally throughout the country? My chief object in writing is to ask whether, in view of the negotiations now going on, it is necessary for panel chemists to give three months' notice if they decide not to accept the discounting clause next year? It seems to me important that we should know just how we stand in the matter, and at once.

Yours faithfully,

DISCOUNTED. (224/18.)

[A person supplying drugs or appliances may determine his agreement at the end of the year by giving notice to the Insurance Committee or Committees with which he has contracted not later than four weeks before the commencement of the succeeding year. As at present arranged a meeting of delegates, representing the Pharmaceutical Committees of England and Wales, will be held in London on October 20, when the new terms for 1916 will be considered, so that there will be ample time for each individual chemist to give the statutory notice if he so desires. See the article beginning p. 48.—EDITOR C. & D.]

P.A.T.A. and C.D.A. Reorganisation.

SIR.—I have read the various letters in your columns during the last few weeks with regard to the above Associations and since Mr. Johnston (evidently realising that something will have to be done) tries to smooth matters over for the present, I think we should carefully review the work of these Associations and state plainly what we want and what we expect.

The P.A.T.A., we must all admit, has done excellent work, but by reorganisation it may do better. The manufacturers, Mr. Vorley contends, are dissatisfied and had a meeting at the London Chamber of Commerce (to which the P.A.T.A. subscribes) to discuss the P.A.T.A. constitution. They seem to think they pay too much. Of this they should be the best judges, but one manufacturer has thanked me for persuading him to join the P.A.T.A., and told me that he had obtained one order through joining which would more than recoup him for his twelvemonth's subscription. It appears to me that the subscription is not evenly levied when one manufacturer pays 57. for one article and when another only pays the same for 100 articles. I think if each manufacturer paid 5s., the same as the retailer, to become a member and a further 5s. for each article put on the list, the amount, even if it did not produce quite so much as the present system, would, together with the retailers' subscriptions, produce sufficient for expenses, and it would bring in many more manufacturers, thus probably yielding more than the present income. It was suggested that the number of wholesale representatives on the Council

should be cut down and manufacturers increased so that the manufacturers could equal the combination of retailers and wholesalers; but as the majority of wholesalers are also manufacturers of P.A.T.A. articles, and in no case are they also retailers, I think it is the retailers who should have the increased representation or do away with the wholesale section, as they would be represented as manufacturers.

The manufacturers know and take advantage of the fact that the retailers cannot withhold their subscriptions without being penalised for so doing, inasmuch as the joint subscription is 15s. 6d., or the C.D.A. alone 21s. To remedy this I suggest that the joint subscription be increased to 21s.—i.e., 5s. to the P.A.T.A. and 16s. to the C.D.A. Then if retailers wished to protest in a practical manner against the inclusion in the list of articles which do not show a reasonable profit, they could do so without being penalised. Moreover, this extra 5s. 6d. from all the members should enable the C.D.A. to include at least a modified veterinary insurance. Although I am a city pharmacist and would not benefit to the same extent as a country pharmacist, I realise that the latter would not have the same dispensing risks, and if anything is going to be satisfactory it must be just and equitable, and we must be prepared to give as well as take. Besides, I should not like to feel that I am not protected when I sell a pint of linseed oil for a horse. I will give an instance that happened in my shop. A baker asked me to mix half a pint of linseed oil and half a pint of turpentine, and on asking him if he was going to do a painter out of a job, he told me someone had told him to give it to his horse. On my expostulating he agreed to ask the man again, and found out that the quantity of turpentine was $\frac{1}{2}$ oz. I wonder if the country pharmacist's risk is really greater where they understand animals; also what would have been my position had I not asked the question and been in receipt of a claim for the value of the horse, together with a letter from the C.D.A. informing me that veterinary risks are not covered? I contend that no pharmacist in business can afford to do without the protection of the C.D.A., not so much on account of any damages in which one is likely to be concerned as the effect its mention produces on the unscrupulous. I do not agree with the proposed postponement of veterinary risks until after the war, for the present high prices of animals make its need all the greater, and even should these high prices influence the directors against taking on the extra risk, the Association has sufficient reserve funds to cover this extra risk, and would recoup itself when times became normal again. I hope some more able pen (other than "Jay Mack," for I don't think we want to know how to sell more patents) will take up these subjects, so that they may now be put on a sound basis in order that we shall be prepared to cope with the wonderful cyclone of business we are all anticipating when it comes.

Yours faithfully,

PHARSIGHT. (224/42.)

Manufacture of Fine Chemicals.

SIR,—I notice that "Xrayser II." gives his opinion that it will be worse than a crime—it will be a blunder—to refuse admittance to German goods into this country after the war. My own opinion is exactly the contrary, but opinions without a statement of the facts on which they are founded are not convincing. As the war is not over, nor likely to be over for years, will "Xrayser II." tell us if we could make for ourselves the chemicals we obtained from Germany? Do we lack the knowledge, or raw material, or special apparatus or plant? Would the cost of production be so excessive that the medical use of those chemicals would have to be abandoned? Presumably, the most intelligent and energetic among our young men are now in the Army, but the young people in the technical schools might be of some use in preliminary work if directed by men of experience. For instance, I am told that the students in our technical schools have already made some chemicals hitherto made abroad. It would be of great interest to pharmacists to know upon what lines chemical manufacture is to proceed if Britain is to be dependent upon her own labour and her own raw materials.

Yours very sincerely,

HULL. E. HAWORTH EARLE.

Chemists as Shopkeepers.

SIR,—I do not know if any other members of the craft have been treated in similar fashion by the National Registration authorities, but I fancy it will be an eye-opener to many of your readers to learn that a Ph.C. has his occupation given on his card as "Shopkeeper."

"Shopkeeper," ye gods! Did I give the precious leisure time of many weary years, and many, very many, of my hard-earned sovereigns to qualify for that glorious label? Several Minor men of my acquaintance are duly classed as

pharmacists, and have, in addition, their M.P.S. on the cards. Perhaps the authorities, like many employers one hears about, have a dislike for the Major man. Well, Sir, can I appeal against this horrible sentence? Is there any central body that will listen to my case? I have written the authorities in my own district, but so far they have not acknowledged my note. It is not only the blow to my personal dignity (even pharmacists have a little of this) that worries me, but I fear that, should conscription come, the class "shopkeeper" will be deemed as of little use in the community, and will be drawn on at the beginning, whereas pharmacists undoubtedly will receive some of the consideration their important work merits. I am a married man and a family man, and, although I shall not grumble when the summons comes, yet I wish to delay its coming as long as I can.

Yours faithfully,

WEST-END MAJOR. (225/34.)

Subscribers' Symposium.

For interchange of opinion among "C. & D." readers, and brief notes on business and practical topics, especially new ideas.

The Price of a Mixture.

"The genus 'Ananias' is unfortunately often met with in the front shop of the pharmacist, not the least among the stores' customers, it being a quite common game to try and play one shop against another. The only way nowadays is to price prescriptions at up-to-date rates and on the lines of the Insurance Tariff, as in the case of the prescription in your issue of September 4, p. 63, thus:

	s.	d.
Sodii brom. 3iiss	0	4
Phenazoni 3ij.	1	3
Caffein. cit. 5j.	0	4
Tr. chlor. co. 5ij.	0	1½
Aque ad 5vj.	0	0½
Bottle	0	1
Dispensing	0	2
Total	2	4

Roughly (dependent on locality), 2s. 6d. would not be much off the mark for the private pharmacist."—*To-day's Prices* (226/12).

Legal Queries.

The majority of difficulties in regard to trade law are explained in the legal section of "The Chemist and Druggist Diary," 1915, beginning on page 405.

E. R. J. (221/36).—It is necessary that the witnesses of the signature to a will should be persons of full age—e.g., over twenty-one years.

Duty (233/51).—As explained in the *C. & D. Diary*, p. 421, under "Trade-marks," a claim to proprietary right in the name of a known, admitted, and approved remedy does not remove that remedy from the exemption to medicine stamp-duty.

J. A. (217/45).—Your chest and lung mixture label contains nothing to make the mixture liable to medicine stamp-duty as the label comes within the "body-names" concession. Sometimes liability is incurred by handbills or otherwise, and that you must assure yourself of.

Chardon (220/61) manufactures a preparation the sale of which he proposes to increase by advertising that his representative will, on a specified day, be at a stated place at a stated time, and will purchase for 1l. a box of the preparation, which is sold at 1s., from the first person who asks the representative if he has a box of it and at the same time produces a box himself. Is there any legal objection to the scheme? [The scheme is not illegal in itself, but should it lead to the collection of crowds, or any other nuisance, the police may intervene to stop it.]

Limited (222/51).—The superintendent of the chemist and druggist department of a limited company must be a registered chemist and druggist and a director of the company, but there is nothing to prevent him acting as the *bona-fide* manager of the department of the business in which the dispensing and selling of poisons by retail is carried on. If the company simultaneously trades as wholesalers and retailers and uses the title "Wholesale druggists" for both, the superintendent must be a director of the company and a registered chemist and druggist, it having been held by the Courts that the use of the title by those who retail poisons infringes the Pharmacy Act, 1868, Section 15.

Ignoramus (224/26) asks what form of receipt he should require when paying off a sum he has borrowed on mortgage. Will the title-deeds be handed back to him, and how is he to know whether all the documents have been delivered up? [If the mortgage was a legal one, the property must be reconveyed or reassigned by deed; if, on the other hand, it was an equitable mortgage (*e.g.*, by deposit of the title-deeds), a simple receipt is all that is necessary. If the mortgage was to a building society, friendly society, or provident society, the mortgage-debt will be discharged by a special form of receipt to be written upon the mortgage-deed. All the documents will be handed back to "Ignoramus" when he pays off the mortgage-debt, and if he has no list of them he must rely upon his knowledge of the title in determining whether they are all there.]

Miscellaneous Inquiries.

We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas of them. When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how.

We do not as a rule repeat information which has been given in this section during the past twelve months, but give the reference to the issues in which the information may be found. If querists cannot refer to these they may obtain the numbers from the "C. & D." Office at the published price, usually 6d.

B. T. R. (191/91).—BISMUTOSE.—The following is a translation of that part of the German patent-specification (117269) dealing with the methods for the manufacture of bismutose, to which reference was made in the *C. & D.*, August 7, p. 52:

I. 242 grams of crystallised bismuth nitrate is dissolved by heat in 1,200 c.c. of sodium-chloride solution of 25° B., and after filtration, stirring at the same time, added to the solution of 500 grams of albumen in 5 litres of water. Coagulation sets in at once, which is hastened by continual stirring until complete. The same volume of hot water is then added to the reaction-products, boiled up by the introduction of steam, and filtered while hot. The residue is washed with water until the washing-waters are neutral and free from bismuth. The salt is then pressed, dried, and powdered.

II. 242 grams of bismuth nitrate is dissolved in two or two and a-half times as much nitric acid (sp. gr. 1.21). This solution is then added to an albumen solution, as in Ex. I, prepared above.

III. 100 grams of casein is suspended in 500 c.c. of water and neutralised with soda-lye at a moderate heat (phenolphthalein is used as indicator). To this solution is added a solution (obtained by the use of sodium chloride) of 48 grams of crystallised bismuth nitrate in about 250 c.c. of water, stirring vigorously until a uniform flaky opaque precipitate is obtained. This liquid is heated to the boiling-point, and kept simmering for some hours, then filtered hot, washed a few times with very diluted hydrochloric acid, and then plentifully with distilled water, pressed, dried, and powdered.

Lane (213/1).—WAGES OF CHEMISTS' OUTDOOR APPRENTICES vary according to the part of the country in which they reside, and recently the rate of remuneration has advanced, so that now 50% for a three-years' apprenticeship may be regarded as a minimum, payable, *e.g.*, 10% in the first year, 15% in the second, and 25% in the third, either weekly, monthly, or otherwise, as is agreed upon.

Medical (212/24).—ROYAL MEDICAL COLLEGES' PRELIMINARY EXAMINATION.—The Conjoint Board does not conduct an examination of its own, but accepts the certificates of examining bodies recognised by the General Medical Council. The Pharmaceutical Preliminary is not accepted—*i.e.*, registration as a student of pharmacy does not help one in entering for the Conjoint Board's examinations, but to this the Board is making exceptions. You will find the address of the Secretary of the Board on p. 63 of our Educational Number.

System (218/9).—There is no book dealing with works-management in the chemical and pharmaceutical business. We are surprised that any person contemplating an appointment of the kind should ask such a question.

Pemberton (217/25).—WATER-ANALYSIS.—The latest article pertaining to this subject in the *C. & D.* was in our Summer Issue, by Mr. J. S. White. Of recent books, Thresh's "Simple Methods of Water-analysis" (Churchill, 2s. 6d.) is good, and is adapted to the water-analysis reagents provided by Burroughs Wellcome & Co. Another book is H. B. Stocks' "Water-analysis for Sanitary and Technical Purposes," published by Griffin at 4s. 6d. net.

F. T. W. (210/28).—(1) RADIOGRAPHY.—Workers in x rays under present-day conditions do not expose the person to the action of the rays, so that there is no reason to fear that your eyesight would be endangered by your taking up radiography. The best way of taking up the study would be to become an assistant to a chemist who undertakes radiography, or in the radiographic department of a hospital. The firms supplying the apparatus generally undertake to give a limited amount of instruction. You should obtain Knox's "Radiography" (A. & C. Black, 25s.), which was reviewed in the *C. & D.*, April 24, p. 94. (2) You could obtain a copy of the *C. & D. Diary*, 1906, by advertising in the Coloured Supplement.

H. H. R. (219/26) wants to know why the REMUNERATION FOR DISPENSERS IN MILITARY HOSPITALS is at the rate of 6s. per day, and elsewhere less—in fact, only half. [The 6s. rate was given only to qualified dispensers who were specially enlisted at the beginning of the war, and the number so employed was limited—in the first instance 100. All of the dispensers do not get this; lower rates have been arranged locally, and in many cases where the dispenser joins the R.A.M.C. he gets the ordinary rate of pay for men in the ranks.]

Citric (223/49).—IN TAKING OVER A PHARMACEUTICAL BUSINESS at the present time the stock is valued according to current prices, with a discount agreed upon beforehand by seller and buyer.

J. A. B. (220/15).—ETCHING GLASS.—The following process would probably answer the purpose you have in view: Equal parts of ammonium fluoride and barium sulphate are made into a cream by means of hydrofluoric acid. A rubber stamp with large lettering is used for transferring the etching-cream to the glass surface, upon which it is allowed to act overnight, and it is then removed by washing with water.

Tyne (218/52).—You do not advance any reason why we should analyse the two mixtures supplied by a herbalist. The stomach-mixture was lost by the time it reached us. The cough-mixture seems to be the usual liquorice-and-anise preparation, which is very popular in some districts.

W. H. (218/11).—HAIR-DYE.—See *C. & D.*, July 10, p. 58.

Gentian (215/7).—(1) SYNONYMS.—Iron sulphate is green vitriol, zinc sulphate is white vitriol, and copper sulphate blue vitriol. (2) PARALYSIS IN COLT.—The symptoms you describe seem to indicate a case of reflex paralysis, which is generally due to impaction of the stomach and bowels. (3) ANGLEBERRIES ON CATTLE.—These are best removed with a knife or hot iron, the part being afterwards dressed with an antiseptic ointment. The other method is to apply arsenical ointment night and morning, but care is needed with this remedy. The ointment is made of equal parts of white arsenic and soft soap.

Santi (223/63).—REMOVING GREASE FROM PAPER.—The hot-iron and blotting-paper method having failed, a grease-solvent should be employed—benzine or carbon tetrachloride.

W. F. (220/38).—TICKET-WRITING INK.—You do not tell us the composition of the ink which is not satisfactory, but it probably needs the addition of gum arabic, water-glass, or borax solution of shellac to give it gloss. Ordinary writing-ink evaporated to one-half and then made up to volume with shellac solution is quite satisfactory. An alternative is a spirituous ink made on the lines of a straw-hat stain.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," Sept. 15, 1865

Use of Methylated Spirit.

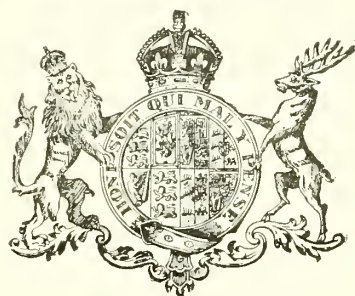
One of the papers read at the B.P.C. meeting in Birmingham was by Mr. John Tuck on "Can Methyl Alcohol, or any Derivative of it, be Readily Detected in Chloroform, Ether, Sweet Spirit of Nitre, and Sal Volatile?" In the paper satisfactory proof was given that chloroform could be, and was prepared from methylated spirit, quite as good in every respect as that prepared from pure spirit of wine. Whether pure methylic or ethylic alcohol was used, the result was the same. No test could distinguish one product from the other, for there was no difference in their chemical composition. Methylated ether could be distinguished from pure ether by its low boiling point. The presence of methylic alcohol in sweet spirit of nitre and sal volatile could be thoroughly proved, both by the iodohydrargyride of potassium and oxidation tests.

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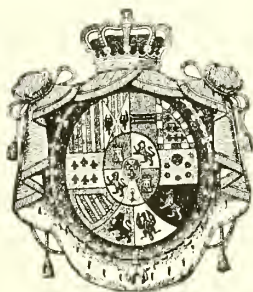
KING GEORGE V.



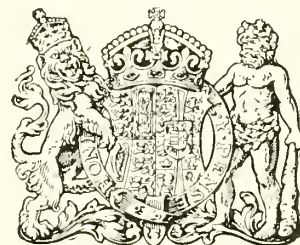
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 " **Scilla**, P.B., 7 lbs. @ 5d. lb.
***Acetone**, 6 lbs. @ 2/3 lb.; 1 lb. @ 2/8 lb.
***Acid. Acet. Glacial**, 99%, Carboys. 132 lbs.; @ 102/6; 12 6-lb. bots. @ 1/2 lb.; 6 lbs. @ 1/3 lb.
 " **Acetyl-Salicyl.** 1 lb. @ 47/6 lb.
 " **Benz**, B.P., 7 lbs. @ 11/6 lb.; 1 lb. @ 12/- lb.
 " **Boric Pulv.**, 3 cwt. @ 43/6 cwt.; 1 cwt. @ 44/6 cwt.; **levigd.** 3/- cwt. or 1 lb. lb. extra.
***Carbol. Xtls.**, 39/40; 55 lb. drums @ 2/1 lb.; 12 1-lb. Bots. @ 2/4 lb.; Single Bots. @ 2/6 lb.; Detached Cryst. 1 lb. @ 2/8 lb.; Crude Black, 45 gall. casks @ 1/- gal.; 5 gall. drums @ 1/6 gall.; 1 gall. tins @ 1/11 each.
 " **Citric, cryst.**, B.P./85, 7 lbs. in bags @ 3/7 lb.; powder 4d. lb. extra.
 " **Diethylbarbituric**, 1 oz. @ 3/6 oz.
 " **Gallic, pur.**, P.B., 7 lbs. @ 4/3 lb.; 1 lb. @ 4/6 lb.
 " **Hydrobrom. Dil.**, B.P., 6 lbs. @ 1/11 lb.
 " **Hydrochlor. Coml.**, cases of 4 2-gal. jars, 25/- each; 20 case lots @ 24/6 each.
***Hydrocyan. P.B.**, 6 lbs. @ 1/6 lb.; 1 lb. @ 1/9 lb.; 36 1-oz. Vials @ 6/6 doz.
 " **Oxalic Cryst.**, 1 cwt. @ 1/1 lb.; 14 lbs. @ 1/3 1/2 lb.
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 " **Sulph. Aromat.** B.P., 5 lbs. @ 4/- lb.
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 " **Tart.**, cryst. or pulv. B.P., 1825, 7 lbs. @ 2/6 lb.; parv. 4d. lb. extra.
Adeps Benz., B.P., 28 lbs. @ 9d. lb. 7 lbs. @ 10d. lb.
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Alolin, B.P., 1 lb. @ 5/6 lb.
Ammon. Benz., 7 lbs. @ 12/- lb.; 1 lb. @ 12/6 lb.
Ammon. Brom. B.P., 7 lbs. @ 11/4 lb.
Ammon. Carb. lump, 3 cwt. @ 5 1/2 d. lb.; 28 lbs. @ 7d. lb.; 7 lbs. @ 7 1/2 d. lb.; powder, 4d. lb. extra.
Ammon. Chlor., 99% pulv., 1 cwt. @ 44/- cwt.; 7 lbs. @ 6d. lb.; Batteries, 4/- cwt. extra.
Amyli Pulv., 10 cwt. @ 16/- cwt.; 2 1/2 cwt. @ 16/8 cwt.; 1 cwt. @ 18/6 cwt.
Aniseed, English ground, 1 cwt. @ 60/- cwt.; 7 lbs. @ 7d. lb.
Antim. Nig. Pulv., 1 cwt. @ 84/- cwt.; 14 lbs. @ 89/- cwt.
Antim. Tart. pulv. 7 lbs. @ 3/6 lb.
ApkI, 1 lb. @ 29/- lb.
***Aqua Anethi Conc.** 1-40, 1 lb. @ 3/21b.
 " **Anisi Conc.** 1-40, 1 lb. @ 3/4 lb.
 " **Aurant. Conc.** 1-40, 1 lb. @ 6/4 lb.
 " **Aurant. Trip.**, 6 lbs. @ 8d. lb.; 53 lbs. for 23/-
 " **Cinnam. Conc.** 1-40, 1 lb. @ 3/7 lb.
 " **Laurocerasi**, 6 lbs. @ 8d. lb.
 " **Menth. Pip. Conc.**, 1-40, 1 lb. @ 3/3 lb.
 " **Rosæ Conc.** 1-40, 1 lb. @ 7/3 lb.
 " **Rosæ Trip.**, 53 lbs. for 25/-; 6 lbs. @ 8d. lb.
 " **Samb. Conc.**, 1-40, 1 lb. @ 6/4 lb.
 " **Samb. Trip.**, 6 lbs. @ 8c. lb.
Araroba, fine powder, 7 lbs. @ 4/3 lb.; 1 lb. @ 4/6 lb.

Argent. Nit., 6's to oz., 25 oz. @ 1/10 1/2 oz.; 1 oz. @ 2/1 oz.
Argent. Nit. Cryst., 25 oz. @ 1/9 oz.; 8 oz. @ 1/10 oz.
Arsenic. Alb. Pulv., 2 cwt. @ 27/- cwt.; 7 lbs. @ 4d. lb.
Atropinæ Sulph., P.B., 1 oz. @ 95/- oz.
Auri Chlor., 6 doz. 15 gr. tubes @ 21/3 doz.; 1 doz. 15 gr. tubes @ 21/6 doz.

Bala. Copalba, pure, 44 lbs. @ 1/10 lb.; 9 lbs. @ 2/1 lb.; 1 lb. @ 2/5.
 " **Peruv.**, P.B., 1 lb. @ 20/- lb.
 " **Sulphur**, 7 lbs. @ 9d. lb.
 " **Tolut.** B.P., 50 lbs. @ 2/3 lb.; 1 lb @ 3/1 lb.
Bismuth, P.B., Carb., 7 lbs. @ 13/- lb.; 3 lbs. @ 13/3 lb.; 1 lb. @ 13/6 lb., subalt. 1/- lb. less.
Boric Mixture, 1 cwt. @ 50/- cwt.
Borax, 1 cwt. @ 26/6; powder 1/- extra
Butyl-Chloral Hydras., P.B., 1 lb. @ 45/- lb.

Caffeine, P.B., 1 lb. @ 24/- lb.
 " **Caffeina Cit.**, B.P., 1 lb. @ 18/- lb.
Calamina, powder, fine pink, 5 cwt. @ 11/6 cwt.; 1 cwt. @ 12/6 cwt.; 7 lbs. @ 2d. lb.
Calamine, B.P., 1885, 7 lbs. @ 1/- lb.
Calci Carb. Precip., 5 cwt. @ 14/6 cwt.; 1 cwt. @ 18/6 cwt.; 28 lbs. @ 22/6 cwt.
 " **Hydras.**, P.B., 1 cwt. @ 25/- cwt.; 7 lbs. @ 5d. lb.
 " **Hypophosph. Pur.**, P.B., 1 lb. @ 2/3 lb.
 " **Iodid.**, 1 lb. @ 23/- lb.
Camphor, English Flowers, "not artificial," 5 lbs. @ 2/5 lb.; 1/2 oz. or 1/4 oz. 7 lbs. @ 2/6 lb.; Crude, good white, about 5% as imported, 140 lbs. @ 1/9 1/2 lb.; 28 lbs. @ 1/10 1/2 lb.

Cantharides, Russian, 7 lbs. @ 16/- lb.; powder 6d. lb. extra.
Capsicine, soluble, 1 lb. @ 9/6 lb.
Carbo Animalis or Ligni, powder or lump, 1 cwt. @ 23/- cwt.; 28 lbs. @ 3d. lb.
Cardamoms, 28 lbs. @ 4/3 lb.; 7 lbs. @ 4/6 lb.
Carmine, Finest, 1 lb. @ 25/- lb.; No. 2, 1 lb. @ 20/- lb.
Cera Alba, B.P., White Moons, 28 lbs. @ 2/5 lb.; 4 lbs. @ 2/7 lb.; Flav. 1 lb. Blocks, 28 lbs. @ 1/9 1/2 lb.; 4 lbs. @ 1/10 1/2 lb.; 1 oz., 1/2 oz. tabs., 7 lbs. @ 1/10 1/2 lb.

Cerii Oxalas, 7 lbs. @ 4/- lb.
Cetaceum, No. 1, fine white, 64 lbs. @ 11d. lb.; 7 lbs. @ 1/1 lb.; powder, 7 lbs. @ 1/6 lb.; **Chloral Hydras Cryst.**, B.P., 7 lbs. @ 12/- lb.; 1 lb. @ 12/6 lb.

Chlorodyne, 5 lbs. @ 2/3 lb.
***Chloroform**, pure, B.P., 12 8-lbs. @ 2/1 lb.; 8 lbs. @ 2/2 lb.; 6 1-lb. bots. @ 2/4 lb.
Cocaine Hydrochlor., B.P., 25 ozs. @ 13/9 oz.; 4 oz. @ 14/10; 1 oz. @ 16/- oz.
Codeina, 1 oz. @ 25/6 oz.; Phosph., 1 oz. @ 21/- oz.; Hydrochlor. or Sulph., 1 oz. @ 22/- oz.

Colocynth, Apple, English ground, 1 cwt. @ 1/4 lb.; 28 lbs. @ 1/5 lb.; 7 lbs. @ 1/7 lb.
Composition Powder (Cofin's), 1 cwt. @ 62/- cwt.; 7 lbs. @ 8d. lb.
Conf. Sennæ, P.B., 14 lbs. @ 10 1/2 d. lb.; 7 lbs. @ 11d. lb.

Cort. Aurant. Exot. Shreds, 7 lbs. @ 2/2 lb.
 " **Cinchon. Rub.** (Quill), 7 lbs. @ 1/1 lb.
 " **Ulm Fulvæ**, Pulv., 1 cwt. @ 11d. lb.; 7 lbs. @ 1/1 lb.

Cream of Tartar, 98% powder, 1 cwt. @ 195/- cwt.; 7 lbs. @ 1/11 lb.
Creasote, Beechwood, P.B., 7 lbs. @ 7/11 lb.
Creta c. Camph., 7 lbs. @ 8d. lb.
 " **Gall. Pulv.**, in sacks, 10 cwt. @ 7/9 cwt.; 1 cwt. @ 9/3 cwt.; 14 lbs. @ 1 1/4 d. lb.

Creta Præparata, 7 lbs. in box @ 1/- each.
Cubebæ, English Ground, 28 lbs. @ 1/11 lb.; 7 lbs. @ 2/- lb.

***Dec. Aloes** Co. Conc. 1-2, 6 lbs. @ 2/1 lb.; Sinecroco, 6 lbs. @ 1/3 lb.
 " **Cinchonæ (Rubræ)** Conc., 1-7, 6 lbs. @ 2/- lb.
 " **Senegæ** Conc., 6 lbs. @ 2/3 lb.

Emp. Spread, 12 yards x 16 ins. adhesive, 3/8; B-lad. B.P.C., Green @ 17/6; **Cerat.** Saponis @ 7/6; **Picis Co.** @ 7/6; **Plumbi** @ 6/-; **Resinæ** @ 4/6; **Roborans** @ 7/-; Saponis, B.P., @ 6/-.

Emp. Picis, P.B., 7 lbs. @ 1Cd. lb.
 " **Plumbi**, P.B., 7 lbs. @ 1Cd. lb.
 " **Resinæ**, P.B., 7 lbs. @ 1Cd. lb.
 " **Roborans**, 7 lbs. @ 1Cd. lb.

Emulso. Ol. Morrhuæ, 5 lbs. @ 1/4 lb.
Eserine Sulph., in 15-grain tubes, 7/- each.
Ess. Bergam. (Oil), 12 lbs. @ 14/- lb.; 1 lb. @ 15/- lb.; not guaranteed absolutely pure.

Ess. Limonis (oil) original coppers, 12 lbs. @ 4/9 lb.; 6 1-lb. bots. @ 5/6 lb.; not guaranteed absolutely pure.

***Ess. Moschi** (not artificial), 5 lbs. @ 11/6 lb.; 1 lb. @ 12/3 lb.

***Ess. Pear** (artificial), Jargonelle, 5 lbs. @ 2/6 lb.; Bergamot, 3/- lb.

***Ess. Pineapple**, 5 lbs. @ 4/- lb.

***Raspberry**, 5 lbs. @ 2/8 lb.; 1 lb. @ 3/- lb.

***Vanilla Beans**, 5 lbs. @ 4/6 lb.; 1 lb. @ 4/3 lb.

***Ext. Belladonnæ Liq.**, B.P., 5 lbs. @ 10/3 lb.; 1 lb. @ 10/3 lb.; solid, 7 lbs. @ 5/6 lb.

Ext. Cannab. Ind., Alc., B.P., 1 lb. @ 54/- lb.

Ext. Cascara Sag. Liq., B.P., 1 cwt. @ 1/4 lb.; 10 lbs. @ 1/6 lb.

***Ext. Ergot. Liq.**, P.B., 5 lbs. @ 4/9 lb.; 1 lb. @ 5/3 lb.; Solid, P.B., 4 lbs. @ 25/- lb.; 1 lb. @ 26/6 lb.

Ext. Gent., P.B., solid, 1 cwt. @ 1/- lb.; 7 lbs. @ 1/2 lb.

***Ext. Glycyrrh. Liq.**, B.P., 6 lbs. @ 2/4 lb.

***Ext. Hamamelis Liq.**, P.B., 5 lbs. @ 3/9 lb.

Ext. Hyoscyam., Solid, B.P., 3 lbs. @ 6/- lb.; 1 lb. @ 6/6 lb.

***Ext. Ipecac. Liq.**, P.B., 5 lbs. @ 21/6 lb.; 1 lb. @ 22/6 lb.

Ext. Malti c. Ol. Jecoris, 10 lbs. @ 8d. lb.

***Ext. Nucis Vom. Liq.**, P.B., 5 lbs. @ 4/- lb.; 1 lb. @ 4/3 lb.; solid, 5 lbs. @ 4/- lb.; 1 lb. @ 4/3 lb.

Ext. Opil Solid, P.B., 1 lb. @ 53/- lb.

***Ext. Opil Liq.**, B.P., 5 lbs. @ 4/8 lb.; 1 lb. @ 5/- lb.

Ext. Quassia, Solid, 7 lbs. @ 7/- lb.; 1 lb. @ 7/6 lb.

Ext. Sarsæ Co. Solid, 7 lbs. @ 6/- lb.; 1 lb. @ 6/6 lb.

Ferri Ammon. Cit., P.B., 28 lbs. @ 3/8 lb.; 7 lbs. @ 3/10 lb.

Ferri Carb., 14 lbs. @ 5d. lb.

Ferri et Quinina Cit., P.B., 100 ozs. @ 9d. oz.; 25 ozs. @ 9 1/2 d. oz.

Ferri Sulph., pure cryst., 1 cwt. @ 16/6; 7 lbs. @ 3d. lb.

Ferrum Redact., 80%, 28 lbs. @ 3/9 lb.; 7 lbs. @ 4/- lb.

Flor. Anth. Exot., 7 lbs. @ 1/8 lb.

Fol. Buchu, oval, good green, 7 lbs. @ 2/8 lb.

Fol. Sennæ Alex. parv., 28 lbs. @ 8d. lb.

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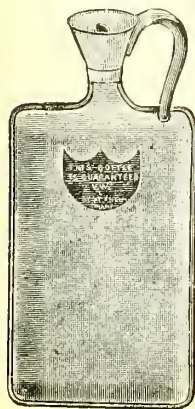
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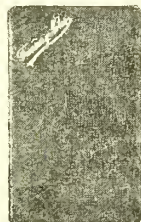
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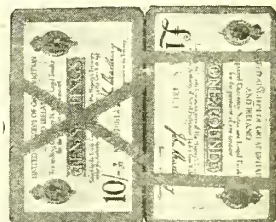
Major CYRIL SANKEY, late Royal Artillery, General Manager.

The REVERSIBLE TREASURY NOTE CASE



Closed.

(Patent
applied
for—
No. 5022.)



Open.

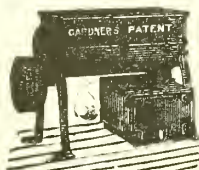
Ever since the introduction of Treasury Notes there has been a demand for a convenient Case for holding same, and the one illustrated above has been brought out to supply the need. A quick-selling popular line. All you have to do is to open the case, lay the Notes inside, open it the reverse way, and they are fastened under the straps. Prices: 1/-, 2/6, 3/6, 5/6, 7/6 & 10/6 each, subject to 33 1/3% trade discount. Showcards and Window Tickets free. Order from the actual manufacturers—

D. HARPER & CO., Ltd., Advertising Novelty and Fancy Leather Goods
Manufacturers, 258-262 Holloway Road, London, N.

GARDNER'S PATENT

"RAPID" SIFTERS & MIXERS

OVER 4,000 working in
almost every Trade where
POWDERS are sifted and
Mixed and Lumps Re-
duced, all being done at
one operation and without
loss by dust.



FOR HAND OR POWER.

From 55/- to £90.

CATALOGUES FREE.

WM. GARDNER & SONS, Engineers, GLOUCESTER.

JUST WHAT YOU WANT!!!

GLASS BOTTLES AT THE RIGHT PRICE.

We make Vials, Poisons,
all shapes and colours.
Special Ammonia Bottles
to meet the requirements
of the Act.
Winchesters, plain and
stoppered.
Mineral Water Bottles,
all kinds.

Perfumery Bottles, all
shapes and sizes.

BOTTLE EXPERTS,

any special shape or
colour made by our up-to-
date Patent Gas Furnaces
and Machinery.

Before placing your orders elsewhere ask your Merchant to consult or write to

ORROCKS LTD., Glass Bottle Works,
CREEKS MOUTH, BARKING, ESSEX.

Established nearly a Century.

Why not add to your income without trouble and without extra stock? There must be many among your customers who, known to you, wear an **ARTIFICIAL LIMB** or other **APPLIANCE**. Advise them to come to us. We are makers of the highest class of Limbs and Appliances, and no time or effort is spared to make each one a success. We will send you a card to say that you have mentioned our name.

Mr. or Mrs. _____, of _____, or send their name and address, and we will forward them a catalogue.

In either case, should business result, we credit you with a substantial commission from 10 to 25%, according to the nature of instrument supplied, and a cheque is sent on the 1st of the month following. We should be pleased to supply you with catalogues in English, French, or German, for distribution, and give any information you may require.

J. & E. FERRIS, 33 MUSEUM STREET, NEW OXFORD STREET, LONDON, W.C.

J. & E. FERRIS, 33 MUSEUM STREET, NEW OXFORD STREET, LONDON, W.C.

Our system of factory organisation enables us to guarantee you—*ceteris paribus*—an exact replica of your selection every time you entrust us with an order.

We do not solicit Hospitals nor consumers, our business being solely with the Trade and Surgical Houses.

Price List and Quotations on receipt of Trade Card.

J. T. POWELL & CO., 83 CLERKENWELL ROAD (FORMERLY 93 HATTON GARDEN), LONDON, E.C.
Wholesale Agents for Scotland: J. T. COATS & CO., The Broughton Laboratories, Edinburgh.

A long, slender, tapered object, possibly a telescope or a specialized tool, with a dark, textured surface. It features a circular logo on the left end and a small circular detail on the right end.

Catheters and Bougies, in Black or Brown Gum, and Finest Silk Web. Specula, Rectal and Esophageal Instruments.
Horse Catheters and Cattle Probangs. Wholesale and Export only. *Price List from the Manufacturers.*

London Agent: JAMES STIRTON, 43 GREAT TOWER STREET, E.C.

Fig. 1331—The "Saffron" Crêpe Bandages, fast edges, $5\frac{1}{2}$ yards long when stretched out—

										width 2 in.	2 1/2 in.	3 in.	3 1/2 in.	4 in.
Medium substance for ordinary wear	...	...	...	...	...	...	...	...	per doz.	6 10	8 1/2	9 1/2	10 1/2	11 3/4
Stout	"	"	hard	"	...	...	...	...	"	8 9	10 6	12 4	14 4	16 1/2

Stout	"	hard	"	...	...	...	...	...	...	per doz,	8 10	8 -	9 -	10 2	11 3
	"	"	"	...	...	...	...	...	"	"	8 9	10 6	12 4	14 4	16 -

Full directions for use with each Bandage.

Cotton Elastic Web Bandage per doz. yards, 2 in. **3/10**, 2½ in. **5/-**, 3 in. **6/-**

Leg Bandage, 3 yards long, fitted with tapes, ready for use, each 1.8

Cotton Elastic, ordinary quality, for hard wear	per pair	3/10	3/-	3/-	3/3
5 % discount allowed for prompt cash off above prices.						Carriage paid on orders of £2 and upwards.			

Carriage paid on orders of £2 and upwards.

We are the right House for British-made Goods. Catheters, Enemas, Elastic Hosiery, Hot Water Bottles, Injection Syringes, Pessaries, Sponge Bags, Trusses, Water Beds, Water and Air Cushions, Waterproof Sheeting; and every description of Rubber Goods.

ILLUSTRATED PRICE LIST POST FREE. OUR GOODS ARE RIGHT. MONEY BACK IF NOT SATISFIED.

91 & 92 GREAT SAFFRON HILL, LONDON, E.C.

From "THE ANTI-CUTTING RECORD."

"IT is now nearly 11 years since the movement which resulted in the formation of the P.A.T.A. was inaugurated. Amongst the first of the fighters for protected profits was Mr. Davenport, the proprietor of **COLLIS BROWNE'S CHLORODYNE**. At a time when the Association had a few supporters and looked rather like being crushed by the opposition which it encountered, Mr. Davenport's assistance came very opportunely, and dealers in Chlorodyne might well bear this fact in mind when selecting a brand to sell to their customers. We think that those who helped to lay the foundation of the P.A.T.A. are entitled to special consideration at the hands of those whom the Association has so much benefited. It should always be remembered that the pioneers ran much heavier risks than those who have come in on the flood-tide after the success of the movement was assured, although of course we are in no sense despising or underrating the importance of more recent converts to the Association, and do not for a moment suggest that they should not be supported. All those proprietors who have stood by the P.A.T.A. through thick and thin ought to be put in an exceptional position in comparison with those who have never done a thing for the trade. If chemists *must* substitute (and it really seems as if some of them can hardly restrain their propensities), surely they might confine their operations to the goods of those makers whose motto is 'Self, and self alone.' We think no fair-minded retailer will, after full reflection seriously blame the P.A.T.A. Council for insisting that substitution must cease when the proprietor loyally does his part."

Purchasers must NOT be asked to sign a Poison Book.

Dr. J. Collis Browne's Chlorodyne

The ORIGINAL and ONLY GENUINE.

"The original Chlorodyne as manufactured from the recipe of Dr. J. Collis Browne is perhaps in greater demand now than it has ever been before. It has been on the P.A.T.A. List since 1897, as readers are no doubt aware. J. T. DAVENPORT, Ltd., 117 Union Street, S.E., have been the sole manufacturers of this article for upwards of forty years."

Pharmaceutical Journal, October 22, 1904.

PRICES AND TERMS.

Size	...	...	...	...	1/1½	...	2/9	...	4/6	...	11/-
Minimum Retail Price	...	...	...	...	1/-	...	2/6	...	4/-	...	10/-
Price to Trade (per dozen)	...	...	...	...	10/-	...	26/-	...	42/-	...	104/-

Discount 5 per cent. on £1 worth, 10 per cent. on £5 worth. Packages charged 3d. on £2 parcels or under, and 1d. for each extra £1 worth, and are not returnable. Carriage forward. Terms: Cash with order. Most Wholesale Houses supply on equal terms.



A COMPRESSED TABLET with a bulky profit

A profit of 1/0 to 1/6 on every pound you sell makes it worth while, does it not ?

You may be inclined to say, "If the goods sell !"

Well, if these Tablets don't keep your scales on the move (especially with the improved form of advertising we are now supplying) last season's records are nothing to go by.

When expert workmanship, and the finest of ingredients are compressed into Tablets like these—and when live, logical, get-there Salesmanship is put into display material like ours—

Why, then there's a meaning in that profit of 1/0 to 1/6 a pound on our

Chest & Lung Tablets

Beautifully finished Tablets. Surprising, at the price. Smooth, well-polished, that are a credit to our machinery and workmen.

And here's a good point : they don't crumble or break with exposure, or handling.

They suck smooth, and taste good—no crude, coarse flavour. Well blended and sweetened. They bring repeat orders again and again.

Sold in Bulk, or Packed, as illustrated. You have the selection from five different titles "bulk," or three "packed." Show-jars—elegant, well-labelled in colours ; showcards and window-bills free ; and also special hand-painted illustrated advertising matter for complete window displays supplied to buyers of cwt. quantities—all smart, well-printed salesmen that promptly pay their rent for your window-space.



Bulk Tablets

Five different styles—Chest and Lung, Norwegian Pine, Scotch Pine, Brownie Pines, and Lung Tonics.

Packed Tablets

Three different styles of tins : Pynefume Tablets, Swiss Pine Tablets, & Diamond Pine Tar Tablets.

Wigglesworth & Co
Rosehill,
Bolton.
W
Tablets & Capsule
Manufacturers.

We shall be pleased to send you samples, prices, and particulars of advertising on receipt of postcard.



TO WHOLESALE & EXPORT TRADES.

ESTABLISHED 1846.

Extracts
Tinctures in Bond

RANSOMS

Resins
Essential Oils

WILLIAM RANSOM & SON, LTD.,

MANUFACTURING PHARMACEUTICAL CHEMISTS,

Distillers of Essential Oils and Cultivators of Medicinal Plants,

HITCHIN, near LONDON.

Telephone: 95 HITCHIN.

A guarantee **Cadbury's Cocoa Essence** *(unflavoured)*
is absolutely pure & prepared only from the finest selected Cocoa

50 YEARS' REPUTATION.

FENNINGS' CHILDREN'S POWDERS.

ADVERTISED EVERYWHERE.

READY SALES.

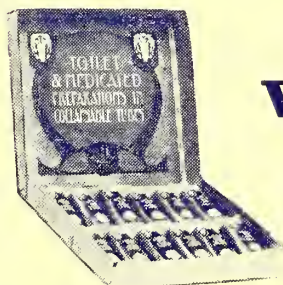
A supply of Fennings' "EVERY MOTHER'S BOOK" or Counter Bills (both with Agent's Name and Address), or Showcards, sent carriage free on application to

ALFRED FENNINGS, COWES.



Prices:

8 oz., 10/- dozen.
14 " 18/- "



Safe Purchases for Early Autumn.

CONSIDERING the recent great rise in the price of Cod Liver Oil, our prices for Cod Liver Oil Emulsion are decidedly low, and the prospect of further advances suggests that *now* is a good time to buy.

We pack a range of 14 high-class toilet articles in very attractive tubes. Cheap enough to be sold at a very modest price, yet good enough to make the customer "come again," these tube goods are a line worth more than passing attention. Here are some of the leading varieties: Cold Cream, Zinc Ointment, Nit Ointment, Tooth Pastes, Indian Cerate and Chillie Paste.

	Small size	Medium	Large
	in outers of 3 doz.	in outers of 1 doz.	in outers of 1 doz.
Per doz. ...	8d.	1/7	2/2
Per gross ...	7/6	18/-	24/-

Vanishing Cream (in bulk).

This is a Cream practically equal in appearance, odour, and effect to the proprietary Creams sold at 1/- or 1/3 per pot.

If neatly packed and discreetly pushed, it should sell well at a very handsome profit. In 1 lb. and 2 lb. free packages at 1/- per lb.

GOODALL, BACKHOUSE & CO., LEEDS.